

IIPA LIBRARY



4149



PROBLEMS OF _____ URBAN _____ HOUSING _____



**REPORT OF
A SEMINAR
ORGANISED
BY THE**

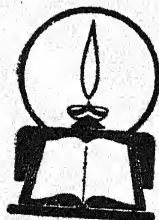
INDIAN INSTITUTE

OF PUBLIC

ADMINISTRATION

BOMBAY REGIONAL BRANCH

SACHIVALAYA, BOMBAY



△ △ △ △ △ △ △ △ △ △
POPULAR BOOK DEPOT, BOMBAY 7

first published
SEPTEMBER, 1960
ASVIN, 1882

printed by
B. G. DHAWALE
KARNATAK PRINTING PRESS
Chira Bazar, Bombay 2

published by
G. R. BHATKAL
POPULAR BOOK DEPOT
Lamington Road, Bombay 7

FOREWORD

The urge to focus attention on the outstanding problems of the day led the energetic Bombay Branch of the Indian Institute of Public Administration to organise a Seminar to consider the measures necessary for providing adequate housing in the urban areas. Its invitation to participate in the Seminar received a very warm response. Representatives of the Central and State Governments, the Municipal Corporation, the Housing Boards, the Financial Agencies—such as the Life Insurance Corporation and the Banks—, the Landlords and the Tenants' Associations, the Employers' Federation, the Architects Association, the All India Manufacturers Association, the Builders' Association and the Co-operative Housing Finance Society met round the table in a common endeavour to devise measures for promoting house building activity in the urban areas.

The problem has become acute because in spite of the steady growth in urban population the provision of housing has lagged far behind. As against the annual increase of 4 per cent in urban population new houses have been built only at the rate of 2 to 2.5 per cent. The Planning Commission in 1951 estimated the shortage in urban areas of 2.5 million houses. Since then the position has become more acute. A close-up of the situation in Bombay reveals the fact that while the population during the last 17 years has increased by 200 per cent, the increase in the number of properties is only 17 per cent. For a population of 43 lakhs there are only 6 lakhs tenements. Temporary hutments and overcrowding with relatives provide for 10 lakhs, but five lakhs can claim no roof over their heads and have to sleep on the pavements! The shortage of 3 lakhs tenements has to be made good. A recent survey in Ahmedabad has shown that only 43 per cent of the population have normal habitation, 32 per cent live in overcrowded houses, while the rest live in huts hardly fit for human habitation. The conditions in other cities are more or less similar.

Adequate housing is a basic need for the people and the shortage presents essentially a health problem affecting not only the well-being of the people but also their manner of living and the ordinary decencies of life. Owing to lack of proper living conditions in our towns and cities, not only are the hospitals overcrowded but the productivity of the workers is affected. The social consequences of such neglect can also be easily imagined. The pavement dwellers in Bombay become easy prey to the distractions provided by the city-

drinking, women and gambling. Crime thrives under such conditions. These homeless people are the black spot in the social life of the city.

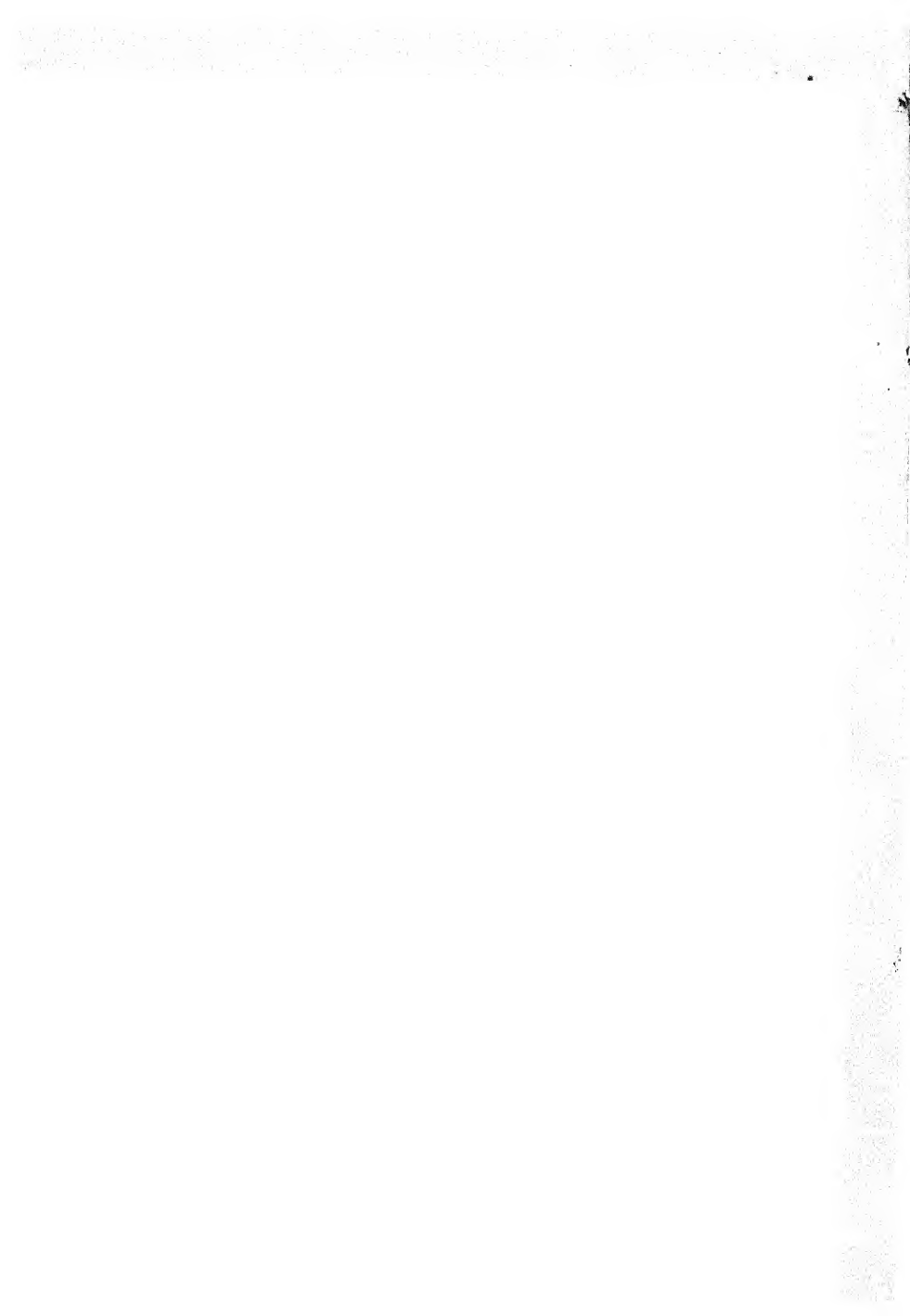
The members of the Seminar were so conscious of the dimensions of the problem that they felt that it could only be solved by giving it a very high priority, next only to that of achieving self-sufficiency in food. It needs the co-operation of all the agencies, the Central and State Governments, the Municipal Corporations, the landlords and the tenants, the financing agencies and the Co-operative Societies and the construction agencies. It was felt that the out-moded system of Government and Municipal taxation was checking the growth of private enterprise. The State taxation is levied on the gross rental income making no allowance for the Municipal taxes and the cost of keeping the buildings in proper repair. The Municipal tax is also based on the gross rental value. Restrictive State legislation permits only a meagre return on investment in house construction. The combined effect of these measures serves to discourage private enterprise in house construction. The provision of adequate housing for low-income groups presents special problem. The high cost of construction can only be cushioned by the grant of State subsidy and provision of long term finance on easy terms to suit the paying capacity of such groups. The Seminar has made useful suggestions for amending the system of State and Local taxation and for providing finance on easy terms to low-income groups. It has rightly laid special emphasis on encouragement of Co-operative Societies for house construction. The Seminar felt that the State Housing Boards should be used as spearheads for securing rapid advance in house construction. Their functions should not be restricted to construction of houses on behalf of Governments, but they should be consulted by the Governments on all questions of housing policy. Their utility could also be increased by entrusting to them the co-ordination of all activities of the Governments which were at present scattered among various departments. Their expert knowledge could also be utilised by authorising them to construct houses on behalf of employers and non-official bodies if the latter make a request for the purpose and place the necessary funds at their disposal. The widening of the scope of activities of the Housing Boards would make them more effective in promoting house building activities in the States.

It is hoped that the report of the Seminar will receive careful consideration by the Central and State Governments, the Municipal Corporations, the Housing Boards, the Financing Agencies and the Co-operative Housing Societies. The Seminar will not achieve its purpose until this is done. It has appointed a Committee to press its recommendations on the authorities concerned and to persuade them to take early action. The Committee makes an earnest appeal to the authorities concerned with urban housing to study the report

carefully and to communicate the action taken by them to the Secretary of the Bombay Branch of the Indian Institute of Public Administration, Sachivalaya, Bombay. It is only by the united efforts of all that that this elemental need of the urban dwellers can be satisfied. A war-devastated Europe has been able to repair the heavy damage to housing due to bombardment, within a few years. Given the same spirit and determination India can also provide decent houses for all in its towns and cities.

10th August 1960
Bombay

K. L. PANJABI



CONTENTS

FOREWORD	iii
----------	-----

PART I

INTRODUCTION	1
WELCOME SPEECH	
<i>by SHRI K. L. PANJABI, Director of the Seminar</i>	3
INAUGURAL ADDRESS	
<i>by SHRI SRI PRAKASH, Governor of Bombay</i>	6
SUMMARY OF DISCUSSION	13
CONCLUSIONS AND RECOMMENDATIONS	28

PART II: BACKGROUND PAPERS

HOUSING ACCOMMODATION AND FINANCE	
<i>Report of the Study Group on Greater Bombay- Summary of the important conclusions and recommen- dations of the Housing and Housing Finance Panel</i>	35
FINANCIAL RESOURCES OF THE MUNICIPAL CORPORATION	
<i>by SHRI S. M. Y. SASTRY</i>	42
THE INCIDENCE OF TAXATION	
<i>by SHRI B. P. PATEL</i>	47
THE BUILDING MATERIALS	
<i>Report of the Study Group on Greater Bombay- Observations of the Building Materials Panel</i>	59
PROGRESS THROUGH PREFABRICATION	
<i>by SHRI MINOO J. DUBASH</i>	66
A STUDY INTO THE HOUSING PROBLEM OF GREATER BOMBAY	
<i>by SHRI M. P. MORE</i>	84
SCHEME FOR PROVIDING HOUSING ACCOMMODATION	
<i>for the Middle Class</i>	
<i>by SHRI J. A. TARAPOREVALA</i>	99

CO-OPERATIVE HOUSING SOCIETIES	
by SHRI K. L. PANJABI	104
CO-OPERATIVE HOUSING	
<i>With special reference to "Group Housing" for private employees</i>	
by SHRI G. M. MANDALIA	108
PROBLEMS OF URBAN HOUSING	
<i>Financial Aspects-Resources-Agencies-Taxation Policies- Disincentives and Incentives</i>	
by SHRI C. R. DESAI	120
PROBLEMS OF URBAN HOUSING	
<i>Legislative and Administrative measures-Planning including Master Plans and Development Plans-Land Acquisition-Housing Standards and Materials</i>	
by SHRI C. R. DESAI	126
SLUM CLEARANCE PROBLEM IN AHMEDABAD	
by K. M. KANTAWALA	135
CONSTRUCTION AGENCIES	
by SHRI B. P. DERIA	149
LIST OF PARTICIPANTS	151

INTRODUCTION

At the Annual General meeting of the Bombay Branch of the Indian Institute of Public Administration held on the 28th February, 1959, it was suggested that the Branch should organise seminars on selected subjects and invite persons who could speak with authority on them, to participate. The Executive Committee accordingly appointed a Sub-Committee consisting of Shri V. T. Dehejia, I.C.S., Shri M. R. Yardi, I.C.S., and Shri M. G. Pimputkar, I.C.S., to suggest suitable subjects and work out a plan for the organisation of such seminars. The Sub-Committee recommended the following two subjects :

- (a). Present needs of urban housing with special reference to shortage of finance and materials, and
- (b). Agricultural Crop and Improvement loan finance.

It suggested that Government and non-government agencies interested in the subject should be invited to participate in the seminar, and a Committee of three persons from amongst the representatives of the agencies should be formed to work out further details.

2. The Executive Committee decided to organise a Seminar on "The Problems of Urban Housing" and appointed, a Sub-Committee consisting of Shri K. L. Panjabi, I.C.S. (Retd.), former Chief Secretary to Government of Bombay, as Chairman and Shri V. L. Gidwani, I.C.S., Shri B. P. Patel, I.C.S., Shri R. S. Bhatt, Shri K. B. Carnac and Shri N. S. Pardasani I.A.S., as members. Shri C. R. Desai, Housing Commissioner, was later coopted by the Sub-Committee.

3. Various organisations including Government Departments, Statutory Bodies, Municipal Corporations in the State, private associations and individuals interested in the subject were requested to participate in the Seminar by submitting papers and deputing representatives. A list of organisations and their representatives and the other invitees who participated in the deliberations of the Seminar is given in Appendix A to this volume.

4. In all twelve papers were received for the Seminar and circulated among the participants as background papers. These have been reproduced in Part II of this volume.

5. The Seminar was held on the 6th and 7th September, 1959, at the Sachivalaya, Bombay, under the Chairmanship of Shri K. L.

Panjabi, I.C.S. (Retd.). The Seminar was inaugurated by Shri Sri Prakasa, Governor of Bombay.

6. For purposes of discussion, the subject was divided into the following three sections.

I - Financial Aspects including Resources, Taxation Policies, Incentives and Disincentives.

II - Planning and Administrative Coordination, Siting, Materials and Designs.

III - Construction Agencies.

After the inaugural session in the morning on 6th September Section I was taken up for discussion and was followed by Section II in the afternoon. Section III was discussed in the morning on 7th September and was followed by a general session at which the Chairman summed up the conclusions reached by the Seminar. At his suggestion a Committee consisting of Shri B. P. Patel, Shri V. L. Gidwani, Shri C. R. Desai, Shri W. X. Mascarenhas and Shri N. S. Pardasani under the chairmanship of Shri K. L. Panjabi was formed to draft a report of the Seminar.

WELCOME SPEECH

by

SHRI K. L. PANJABI, I.C.S. (Retd.)

Director of the Seminar

We are deeply grateful to your Excellency for your gracious presence in our midst today. Despite your multifarious engagements you have found time for us. I believe that this is the first time that the Bombay Branch of the Indian Institute of Public Administration of which you, Sir, are the President, has requested you for the honour of your presence. That you have found time to do this shows your keen interest in the working of the Branch. Ever since its inception, this Branch has been working actively to fulfil the object of the Institute, that is to promote the study of Public Administration and allied problems. It has organised a series of talks and study groups which have been well attended and has thus focussed attention on the main problems of administration.

This Seminar has been called to consider how the shortage of housing in the urban areas can be made good as quickly as possible. The restriction in the scope of the Seminar to the urban problem is not because all is well in the rural areas. There is a popular belief that in the rural areas the people have more living space in the shape of courtyards and open spaces, and, therefore, there is not so much urgency. But those conversant with rural conditions, have been struck with the fact that a large number of the houses are so primitive and insanitary that they are hardly fit for human habitation. However, as the factors affecting rural housing are different, it was felt that the two problems could hardly be considered together and it would be best to take them separately. I hope that a Seminar on rural housing would also be held in the near future.

The housing problem is basically the health problem, not only the physical well-being of the people, but also the provision of such social conditions as would ensure decent living. Overcrowded hospitals cure people who come again and again because of the diseased houses in which they live. Lack of proper housing has far-reaching effects, and the community has to pay dearly for any neglect in this respect. The conditions in Bombay City, which have recently been

investigated, would illustrate how acute the problem is. In this City, five lakhs of people are unable to obtain any housing or even living space and have to sleep on the footpaths. The social consequences of such living can best be imagined. They cannot call their wives and children from upcountry to share the footpaths with them. Deprived of the restraints and decencies of family life, how do they seek recreation after a hard day's labour? They have no home to go to and many fall prey to the distractions provided by the city—drinking, women and gambling. Crime thrives under such conditions. Fifteen Magistrates in the City sit from day to day sending people to prison and they are working overtime. These homeless persons are the danger-spot in the social life of the city. The housing policy is clearly a national issue demanding a high priority, next only to food. Government has a special responsibility, for it has muddled in the house market and must, therefore, see it through.

While the urgency of the problem is admitted, we appear to lack the determination to tackle it effectively. It is surprising that the heavily bombed areas in Europe have rebuilt their houses, but in this country we have been unable to provide for the normal growth of population in the city areas. Recently a detailed study of the problem was made in respect of Bombay City by a study group under the able guidance of Shri S. G. Barve. It has recommended that three lakh tenements should be constructed during the next ten years. But at the present rate of increase in urban population, even if this programme is implemented, the position in 1970 will be the same as it is today. The new houses will only cater for the increased population. Conditions in other cities are more or less similar. It is clear that the demand for housing accumulates. Not satisfying it in time only aggravates the position.

Considering the desperate shortage and the evil consequences, one may ask "Is it not possible to give a higher priority to housing over the gigantic schemes which are taking a lion's share of our resources?" Housing may not be so spectacular but it satisfies an elemental need of man. Even from a utilitarian point of view it will increase the productivity of the worker and relieve the pressure on the hospitals and lead to cleaner living.

How it can be done, the Seminar will consider in detail. We are fortunate in that we have the cooperation of all the important agencies interested in urban housing. I take this opportunity of welcoming them all. The representatives of the Government, the Municipal Corporations, the State Housing Boards, the Life Insurance Corporation, the Indian Merchants' Chamber, the Co-operative Housing Finance Society and various other Associations and

prominent persons interested in urban housing have met today to exchange views on the problem. Over a dozen useful notes for consideration of the Seminar have been submitted. While the problem is a tough one, all of them are keen to tackle it with earnestness and sympathy. I hope that they will find a way of providing every urban dweller a home—or at least decent living space as quickly as possible.

It is my privilege, Sir, to request you to inaugurate the Seminar and give us your blessings. With your encouragement we hope that the Seminar will serve to focus public attention on the acute shortage of houses in the urban areas and indicate the way of making up this shortage with the cooperation of the Central and State Governments, the Municipal Corporations, the private sector and the Housing Cooperatives.

INAUGURAL ADDRESS

by

SHRI SRI PRAKASA

Governor of Bombay

The Indian Institute of Public Administration has to deal with many important problems, but the Seminar in which you are assembled this morning is going to concentrate itself on a very important aspect of modern civilisation that pertains to city life. Usually, when one talks of civilisation one talks of habits, ideologies, etc. that have been evolved in cities. We do not usually refer to rural life or to conditions in villages when we talk of civilisation. I think that is a pity, but that is a fact. We are going back on our civilisation which is 6,000 years old when the people who built Mohonjedaro and Harappa were in existence. There also the Indologists and the Archaeologists tell us as to how the cities were built, how men and women lived there and how they carried on their activities. So, today, we are worried about life and activity in the modern city, and one of the problems is that of housing, and I take it that you have assembled here to tackle it, to give your own wisdom and knowledge and experience and ideas as to how the problem can be satisfactorily dealt with.

Personally, I must confess, even at the risk of being called an old-fashioned person, that I should not like villages to be neglected as they are today. So much of our energy, our attention, our resources in money and material are all given to towns, and so there is a neglect of well-being of our village folk. Mr. Panjabi has just referred to the fact that towns are becoming increasingly attractive and that men and even women come from distant places to take up their residence in towns even if they have to live on the foot-paths. So, if I am not suggesting something that is irrelevant or improper, I think that you might also give some attention to the psychology of the people which brings them to towns and find out how it is that towns have become attractive. From the days of ancient Rome, two or three centuries before Jesus Christ was born, to Mahatma Gandhi in our own days people have been asked to go back to the land. But it so happens that once you come to town you do not want to go back to the village. Something has, therefore, got to be

done so that villages may not be entirely denuded of their personnel as time advances. It has been found that, particularly after a great war, towns tend to grow. That is one aspect of human life which needs, I think, to be studied in some detail. When the Governors in ancient Rome called persons to go back to the villages, it was also after the wars, for in war-time there are heaps of materials which are necessary and which can only be produced by human beings coming together, and cooperating in producing the needed production. So also after the last two great wars we have seen, within our life-time cities growing enormously. This cannot be regarded as a healthy sign because, for one thing to make the cities better and to look after their interests, it is all done at the expense of those who live in the villages. The great cry of Mahatma Gandhi was that we must look after our villages. He went to the extent of saying that *swaraj* is not worth having if it was confined only to the towns and to the people who lived in the towns. He said that unless people in the countryside come and join us we would not be able to achieve what we want.

Although you are immediately concerned with the problems of urban housing, I am emphasising that you should also not forget the causes that make this problem so important to you. The causes clearly are that persons in large numbers are coming to towns from villages and it is time that we cry halt to it, for if you do not do it then various other problems, particularly of food, would become increasingly difficult. After all, you do not produce food in the streets of the town. You have to depend upon the villages to give you food. So, if we want to tackle the problems of the town we must tackle the problems of the villages and see that villages themselves become so attractive that persons who are born and bred there desire to live there and do not migrate to towns. Otherwise, that would certainly harm our problem of urban housing. But that is only by the way.

So far as I can see, the main problems which are connected with housing are that houses firstly should be economic. They should be in conformity with the means of the people who are to live in them. My father, who was besides being a great philosopher was also a very practical house-holder, often said that no one should have a house which costs him more than two years' income of his. If he builds a house that does not cost him more than two years earnings then he would be able to maintain that house. But usually the tendency is to spend a great deal of money in building a house. There is an old Persian saying that everybody, it seems, wants to build a new house in his own way. It does seem that this is particularly true of our country. While the great sovereigns of Britain have lived in their palaces of Buckingham and Windsor through the centuries, Indian Princes whenever they came to *gadi* were inclined

to get out of their fathers' houses and build new ones for themselves. All that cost a great deal of money. The President told me the other day that since *swaraj* we have put up Rs. 2,000 crores worth of buildings in the country. The desire to build here is even greater than in other lands. Moreover, we are not at all caring for the old buildings and we allow them to dilapidate. Noted architects like Sir Edward Lachems who had come to India to advise the Government of India on building New Delhi, told me when he visited Banaras, that he had never seen dilapidation as in India. Wherever he went he found old buildings crumbling down. You do not see such a thing in Western countries. They take great care to repair whatever gets broken or has fallen. That is not with us. That is why we see temples and mosques, apart from private buildings, falling to pieces. Nobody seems to care for them. That is why father used to say that nobody should build a house costing more than his two years' income, as otherwise he would be unable to look after the maintenance of the house. Even as regards the Government House, I do not know what they spend on the Sachivalaya, there is a grant given to it—Rs. 2½ lakhs, so that it may be kept in perpetual repair. Householders, therefore, must also see and make sure that they are able to set apart a proper amount for the repairs of their buildings. If they are not alert and if they do not see to the proper maintenance of their buildings, the buildings might fall on their heads or get into such conditions that they require large sums of money to rebuild them or effect major repairs to them. In our desire to build new houses, we should not neglect old buildings. These, to my mind, could be so touched up by the skill of the engineers and the architects that they would be good for modern conditions and could be properly utilised. You may perhaps consider that aspect of the problem as well. In any case, the first thing that you have to see is not to build ideal houses but houses which could meet the modest needs of the common people who will be living therein. Secondly, we must also make sure that the houses really suit the requirements of the people. Very often, we are inclined to make plans and sketches that may be good for ourselves but may not be equally good for those who are going to inhabit these houses. So while we should lay stress on economy, we should also lay equal stress on utility. Then, we have also to make sure that the houses are strong and durable. It is no use building houses which would tumble down before they are completed. It is a pity that we in India do not utilise engineers and architects as we ought to do. Coming as I do from the old city of Banaras, I do know something of what I am talking about. I know of persons who are their own architects and their own engineers. They have no blue-prints with the result that when they go through the construction of their houses they make some mistake somewhere, or there is not something that ought to have been there, with the result that they have to start afresh. You may be sur-

prised to know that not unoften when they have built their third storey, they have no staircase to climb which they put up afterwards somehow or other. So you have to see that the actual requirements of houses are completed. When you look after the economy of your construction, you should also look after its utility as well as its durability.

Then, there is one other aspect of urban housing which we must not and cannot neglect and that is, that the houses must be good. I do not think that I can congratulate those who are responsible for the building of newer houses in Bombay on their achievement because I do think that the old city with its building is very much beautiful than the Marine Drive, even if Marine Drive is perhaps more comfortable in accordance with modern tastes for those who live there. I think our houses should also be beautiful. A city beautiful is an old phrase and it ought to live. Bombay, for instance, is famous for its beauty but I fear the old city is being submerged by the surrounding suburbs and perhaps people will not be able to describe this city as beautiful in future as they have done in the past.

There is one aspect of city life which also perhaps you may consider if you think it comes within your purview and it is that neighbours should know each other. It is a curious thing that in towns even if they live on the same story and pass each other morning and evening they actually do not know each other. That is not so in countryside. Everybody seems to know there everybody else's affairs. In fact, they know each other a little too much. But here in cities we are all inclined to be very individualistic. We do not care to meet our neighbours. Would you not be able to devise some means so that we may be a little more neighbourly than we are at present moment? I do not know whether it is possible to build houses in such a way that two neighbours may be able to meet each other, to know each and to have affectionate and good feelings amongst themselves. Even if one has friends and relatives, because they are at a distance, they cannot come to our aid as neighbours can if we are on good relations with them. So neighbourly relations are a very important thing. But it is rather a curious thing that in towns where large numbers of persons live near each other they really know each other very much less than they do in the villages.

I have said all these things which I think are important when we consider the problems of urban housing. We should also consider the conditions as they actually exist in towns today, particularly in Bombay. I come from the North. I may be and very rightly regarded as belonging to the community which is known as "bhaiyyas". There are hundreds of thousands of persons who come from my own town of Banaras and the neighbouring districts of Jaunpur and Gazi-pur with which I am very familiar. I am not at all satisfied with the conditions in which they live here in Bombay. You may say that they mix not water with milk but milk in water. You may

have other things to say against them, but the fact is that you do not treat them properly, and I think it is time that you do something for them and for all others who are useful and who come to help not only in building but carrying on the economic life of your city.

There are a large number of persons from Andhra, from Tamilnad and from various other parts of the country, but since I come in direct touch with those who come from my own State, the Uttar Pradesh, I wish to say a few words about them. I do not know whether many of you have visited the cattle sheds of these people. It is not enough to go and see the beautiful Aarey Colony. It is not only the Aarey Colony that looks after the milk supply of this city of yours with a population of four millions. But you go to the cattle sheds of the persons whom you know as Bhayyas and who are in charge of buffaloes. Some say they get the promised pound of milk and some say they do not. But you see their conditions of living. You will see them sleeping on the roofs; they cook themselves and work somewhere and somehow eke out their existence. When I tell them why not go back to the villages where there are acres of land waiting to be ploughed and to be looked after by them, they said they did not want to do so. They get in Bombay 52.50 nP. per month as salary; they try to live as frugally as possible and send their savings to their homes, so that the rent of the land may be paid, so that the debts may be cleared, so that education may be indulged in or their other requirements of the village life met.

My friend Shri Panjabi has referred to footpath life. These Bhayyas may be referred to as roof dwellers, and the conditions of both is equally bad. Therefore, if you want to build a town you should better see that all classes that go to run the town are properly housed, and if you cannot do that I do not think you have any right to do it at all. Let me be quite frank. Personally I think there should be a definite law prohibiting a town becoming larger than some fixed area; or at least its population should be fixed. The other day I had occasion to be at a Seminar like yours and that was discussing the problems of multi-storeyed buildings. I must say that I am totally against these very high sky-scrapers. If the Marine Drive buildings were to go higher and higher, the result would be that they will stop all the breeze that the people who live inside the town have a right to receive. I do not know how they think of multi-storeyed buildings in America, but here I think things are not being managed practically at all. When I was in Madras I certainly tried to put down all attempt to build very high houses. I do not know why Bombay people not only want to destroy their own city but also other cities. Madras is certainly one of the most beautiful cities of the country. One must make sure that the houses are not too tall. In America, so far as I know, there are some sort of terraces constructed so that the first storey on the two sides of the road is of a particular height and the other storey is pushed inside

so that more air way may be left. How they manage to do all these things I cannot say. But that is one of the ways in which the problem can be tackled.

Then in towns you have great congestion and your problems of sanitation are difficult. I agree with Shri Panjabi entirely when he says that it is a false belief of city people that persons living in villages have more house space. They have more space without doubt, but their houses are very small, insanitary and not often fit for human habitation. I am familiar with them and so I can talk about them with a certain amount of personal knowledge. The poor people there without their architects and their engineers build houses somehow. There is no provision for the various necessities of household life which, as Shri Panjabi rightly said, need a certain amount of dignity and sanitation for family existence.

In large towns you have your hospitals and you have your colleges and universities. So far as hospitals are concerned, I have nothing to say, for hospitals are busy night and day and every inch of space there is utilised. But then I must say something about educational buildings. You will see that not much attention is given to hostels where students live for most of their time but you have large halls which are perhaps used once a year and on which mints of money are spent. You should advise people, therefore, to utilise the buildings properly and well. The English people are far richer than we are. I had the good fortune of having been at the Cambridge University for three years and there the college buildings are used because the students actually live there. There are a few halls which can be utilised for lectures and other purposes in mornings and evenings. I had seen a big room in my own college at Trinity having collapsible wall so that if they wanted a bigger place they pulled the wall and they had a big place for a lecture. They are careful about their money. They know their requirements, they know their needs, they know their tastes and therefore all is well. We here are not so careful and it is time we are so.

I suppose you will be dealing with houses which are built in a mass, so to say. There will be buildings which are put up by syndicates and corporations. But we in India are essentially an individualistic people. It is no use saying what we should be. It is up to you to see what we are and to meet our requirements as they happen to be. Now, being individualists, most of us will have our own houses. We have to get our own ideas about the place in which we want to live. We have our own very specific requirements. Human beings are not like animals, where members of one species have a similar type of houses. You see that birds of one species have little nests of the same size. They seem to be born with the capacity to build their nests. A sparrow will build a nest of one sort; robins will build of another sort, and you have different birds building nests of different sort. When the young ones begin to take

their wings, they abandon their little nests and build a new and a bigger nest and the whole family lives in it. But that is not so with us. Each of us has a different taste. That essentially differentiates us from the animal world. Why do you want to destroy that inborn tendency in all of us to have a house as one would like to have it, and that would meet his tastes and requirements. So your seminar should serve to give proper advice to individuals who are wanting to build houses for themselves and who seek your help. I think if you were to keep in your minds the various principles that I have ventured to suggest now, then your advice will be welcome and valuable to all individuals. At the same time I recognise that in a town like Bombay you have to have buildings in the mass, because your space is limited, and you have to have buildings constructed by Corporations and Syndicates, where persons stay as temporary shelter and go away, and other persons with like needs and like tastes will come and stay there. Even there also you may keep the various principles that I have ventured to put before you in your mind, and if your Seminar will please take those various matters into consideration, viz., matters pertaining to psychology of the people, matters pertaining to their needs and means and tastes, then I think you will be setting a very good example for others to follow.

I once more thank you, my friends, for the great honour you have done me in inviting me to inaugurate this Seminar. As I declare the Seminar open I also hope that the purpose that has brought you today will be fulfilled and that from you will go forth some kind of thought and activity that would make our city and other cities of our land more beautiful and where people will be able to live in greater comfort and which will be our pride and the pride of our country.

SUMMARY OF DISCUSSION

SECTION I : *Financial Aspects including Resources, Taxation Policies, Incentives and Disincentives.*

Initiating the discussion, *Shri B. P. Patel* stated that divergent and uncoordinated politics pursued by the various taxing authorities—Central and State Governments and Municipal Corporations—were, to a large extent, responsible for the failure of housing construction to keep pace with the growth in urban population. By taking actual figures of taxation levied in the Bombay City, he showed how even on low income group housing, for which Government had recognised the need for a subsidy, the burden of taxation was heavy. As a result, the return on investment on such houses was too low and the rent which was charged beyond the rent paying capacity of the class. He suggested that the municipal taxes in Bombay, which were levied on the gross rental value should be calculated on the basis of net rental value. At present, a section of the population which was lucky to occupy old houses with low rents also paid less by way of municipal taxes and was thus subsidised by another section which had to pay much higher rents and proportionately higher taxes. He made a fervent plea to change the laws relating to taxation and in particular to modify the relevant provisions of the Rent Act to enable the Municipal authorities to correct the disparity. He agreed that it was necessary to devise a formula which would safeguard the revenues of the Government and at the same time promote the housing activities. Personally he preferred house-building by the co-operative agencies as they extended material benefits to the occupants and made cultural and social life possible.

Shri V. L. Gidwani observed that due to the difference between ability to pay rents by the tenants and the cost of construction, a subsidy by Central and State Governments, and to some extent, by public bodies and private employers was an inescapable proposition, if we were to provide houses for the poor and the middle classes. If subsidy was not provided, the employees would demand higher wages or a house rent allowance. With reference to the question of coordination in taxation policies, he pointed out that Municipal taxation was at present based on the provisions of a State law, the Municipal Corporation Act. He agreed that rateable value would not

be an equitable basis for levying taxes. It was a good method when houses were of the same type and when the cost of material was not rising. Some other method or formula which took into account floor area or cost of construction, etc. would now have to be considered. This would involve readjustment of burdens. Unless the public authorities could squarely face the fact that any reorganisation of tax arrangement would mean imposing a larger burden on the tenants who occupied old buildings and unless they reconciled themselves to it in spite of the fact that it might prove to be unpopular, the Municipal authorities would have no way of changing the arrangement.

Shri J. A. Taraporewala pleaded the cause of the middle class people. He showed how if the big reservoir of money, like Government, Municipalities, Life Insurance Corporation, etc. gave a loan of Rs. 12,000/- on easy terms and a middle class person contributed Rs. 10,000/- as his share, a decent house with two bed-rooms could be constructed. The latter could own it by paying monthly rental of not more than Rs. 100/- for a period of about 25 to 30 years. There was plenty of area in the suburbs where middle class housing colonies could be established. If houses were built in this manner for all the needy persons who were prepared to contribute a sum ranging from Rs. 5,000/- to Rs. 10,000/- each towards the cost of construction, we could hope to have a stabilised middle class.

Shri D. R. Pradhan began by referring to a scheme recently instituted by Government by which middle income group persons were to be given loans up to about Rs. 20,000/- at concessional rates of interest provided a part of the total cost of construction was shared by them. He observed that housing was a complex problem in which conflicting considerations often arose. It was necessary to reconcile these conflicting interests in the best possible manner. He thought it would be reasonable to expect a person to pay anything from 5 to 20 per cent. of his earnings by way of house rent. If this range was accepted, it appeared, on the basis of other calculations, that a certain amount of subsidy has to be provided for. The housing problem had been created by rapid industrialisation and all ancillary activities associated with it. Industry, business, Government, etc. had attracted the rural people to urban areas. It, therefore, followed that they should bear some responsibility for housing these people. It was not possible for the employees to build houses for themselves on account of their low wages, nor was it possible for private builders to build these houses as there was not sufficient incentive in shape of adequate return. Either Government or private employers should, therefore, take the responsibility of building houses. However, as it was not possible for the Government to shoulder the

entire responsibility, in this connection, the employers must share it. Once they accepted the responsibility, certain difficulties would have to be faced for which cooperation of the Government, Municipalities and other authorities would have to be sought.

Shri L. S. Dabholkar pointed out that the high cost of land and materials was the greatest difficulty to which has been added the various Union, State and Municipal taxes which were ever on the increase and noted that the recommendation of the Shroff Committee that the Urban Immoveable Property tax should be reduced in relation to the Municipal tax in Bombay had not been carried into effect. Because of high taxes, the property owners including the Cooperative Societies had often nothing left and had even to fork out from other sources to pay up the taxes. He referred to certain sections (specially 17, 17A, 17B and 17C) of the Rent Act, Bombay, which did not protect the interests of the tenants and yet prevented individuals and cooperative societies from constructing houses. These provisions, he urged, should be deleted from the Rent Act. The Requisition Ordinance for Subletting and abolition of tenure, which was then before the Legislature in the form of a Bill, would, according to him, create difficulties and prevent the property owners or cooperative societies from taking up the housing programmes. He also expressed dissatisfaction with the manner in which Town Planning was being conceived so as to have less houses and more open spaces. In connection with the responsibility of industrialists to build houses for their employees, he emphasised that additional responsibility of this kind should not be fixed on the industrialists of one State but should be taken up as an All-India question. He further pointed out that it was not possible for an industrialist to spend his capital, which was raised for carrying on industry, on building houses. In case industrialist were required to invest money in houses, some relief in taxation would have to be given to them. He thought that as far as possible rent should not be subsidised as subsidies granted by Government or Public Corporations were ultimately a burden on the public. If the principle of granting subsidy was extended to the industrial workers, it would be impossible for private industry to bear the burden. In the wages fixed for an industrial worker, he stated, rent, food, clothing, etc. were included and as such there was no case for industry to provide housing separately to their workers.

Shri V. Isvaran mentioned two important points. The first point was that the housing problem was not static but undergoing changes year after year because of the continuous influx of people from the rural to urban areas. It had, therefore, to be viewed from the broad aspect of the country as a whole. As the influx into cities was due partly to the intolerable conditions prevailing in the villages,

the improvement of living conditions in rural areas was worth consideration. People should be discouraged from coming into the city by adopting measures like dispersal of industries. If employers were compelled to provide housing to their workers, it would act as a disincentive to location of industries in the cities. It would thus ease the problem. His second point was in connection with the payment of subsidy. The amount which Government could pay as subsidy was necessarily limited. If the rate of subsidy was raised, only a small section of the population would get the benefit. It was not desirable for Government to frame a policy in such a way that it was prevented from enlarging the field of operation. Dependence upon subsidy as incentive to increase the number of houses was, therefore, not practicable. It was necessary to look to loan assistance where the scope is large, both from the State funds and from the funds available in open market. This programme again would not be very popular unless efforts were made to bring down the cost of a house appreciably.

Shri N. S. Giradkar opposed any increase in the rate of return on private investment in urban housing on the ground it would result in higher rent of houses which would be beyond the capacity of the common people to pay. He suggested that loans should be granted directly to the persons who would be interested in occupying the houses and not to any intermediary agency and added that any proposal to amend the Rent Act should be considered with due care and caution lest it affected adversely the interest of the tenants.

Shri N. D. Mehrotra observed that it was necessary to reconstruct our building industry which had gone down for various reasons. It was not possible for Government to take up the job of building houses for every one. Private investors would come forward to build houses if rent and other controls were withdrawn. They were very resourceful. Any proposal for provision of incentives to industrialists underrated their capacities. He opposed the suggestion that property taxes should be assessed on the net income basis on the ground that if net income basis was accepted, there would hardly be any income left which would be taxed. He denied that there was any case for reducing the annual letting value of houses. There were, in fact, he said, many cases in which the annual letting value was very small. If the rent control was withdrawn and the economic factors were felt to determine the cost of materials and buildings, the industrialists would build a number of buildings. If, somehow or the other, they would not do it, industries would be located out side the cities and buildings activities started there. This would reduce the cost of houses. The influx of population in the cities would also be stopped. He referred to the need for small townships and for creating conditions in villages whereby good houses and employment would be provided locally.

Shri J. V. Patel observed that if the employers were to bear the responsibility of providing houses to their employees, they would increase their profits to balance the loss which they would incur in that connection. This would result in higher prices of commodities and ultimately in reduced production. He also narrated the difficulties experienced by the employers in acquiring land, getting plans approved by proper authorities, securing building materials and getting subsidy and loans from Government.

Shri C. R. Desai observed that housing had become a national problem and as such funds were provided for it in the national plans. Though the funds ought to have come according to the provisions in the plan, they were not paid in time to the construction agencies which had, therefore, to face difficulties. Secondly, the housing which had received a status of a social welfare measure was not given priority which was given to production of other essentials like food. The result was that allotment made for it was inadequate. There was, therefore, a case for reappraisal of our economic planning. The State was not in a position to provide housing to all and sundry. But as it was necessary to build houses and find money for that purpose, he advanced certain propositions as under :—

(a) Those, who have liquid money, should provide houses for themselves. They may form themselves into cooperatives or groups. Others should be enabled to get money on loan. Every employer in urban areas should provide housing to his employees in certain proportion. This policy has been accepted by Government also in providing for its essential personnel. It has, however, to be extended to the weaker classes who are not in a position to shout.

(b) For house rent, 20 per cent was a fair proportion of the wage in urban areas. If it was accepted, the amount of subsidies would be reduced to a large extent.

(c) Resources for housing should be available from the provident fund accumulations, the Life Insurance Corporation and the Banks. The State could also mobilise savings from its employees and others by advancing loans under Low Income Group housing scheme. The house-building societies could also be allowed to build houses and sell them on hire-purchase basis to the people, on the condition that they should not earn more than a certain percentage on the capital invested. In this way as many agencies as possible should be brought into the field to solve the problem of housing.

Shri V. Isvaran drew attention to the fact that in Bombay State, Government was allocating more funds for housing than was provided for in the Plan. He also mentioned that moneys were being made available to the Housing Board to acquire and prepare land for the housing schemes in the Third Plan.

Shri V. L. Gidwani referred to the point made by *Shri Isvaran* that it was not possible for Government to give a higher rate of subsidy because it would mean a lesser number of units served and suggested that the present method of giving subsidy could be so adjusted that instead of being a capital charge on the current year it could be spread over a longer period, viz., the life of the estate and that there could also be amortisation. In this way, a larger section would get the benefit of the subsidy.

Shri S. M. Y. Sastry highlighted the problem which the Bombay Municipal Corporation had to face and mentioned the two suggestions which he made in his paper that a part of the cost of construction might be mobilised from the prospective tenants and that housing could be provided not only from the loan funds but also from the current revenues. He invited attention to some concessions allowed by the Bombay Municipal Corporation in assessing taxes. For the last two or three years, the Municipal Corporation had to some extent reduced its taxation in case of tenements whose rental was Rs. 100/- or less. Special concessions were given to co-operative societies and in respect of the tenements of the Housing Board. In a number of cases, it had been found that though a tenement was actually let out at Rs. 30/- per month, the proper rent should have been about Rs. 60/- on which the Municipal taxes could be levied. However, as it was not possible for a landlord, under the provisions of the Rent Act, to pass on the higher burden to the tenants, the taxes were not assessed on the basis of Rs. 60/-. The landlord would, otherwise, be hit harder. In case of owner-occupied properties and co-operative societies, a reasonable rent of the premises was taken into consideration for the purpose of taxes in spite of the fact that some of the tenements of the co-operative societies were let out at a higher rent.

Shri S. P. Zaveri supported the views contained in the papers of *Shri B. P. Patel* and *Shri C. R. Desai* and added that the housing problem had not been dealt with by Government in a realistic and practical manner. The proposal of moving industries out of city was not practicable, as industries and population had grown together. Instead of moving industries, it would be easier to construct houses in the suburbs where land was available at cheaper rates. The land in the city which was very costly should be sold to the industrialists who could afford to pay, and the proceeds might be utilised for development of suitable lands in the suburbs, preferably through an agency like the Improvement Trust. Regarding the problem of demolition of old houses, he suggested that the tenants should be provided with temporary alternative accommodation. The buildings should be rebuilt with extra accommodation. The old tenants then could be given their own accommodation at the old rents and the additional accommodation might be given to

new tenants at higher new rents. He also narrated the difficulties experienced by the co-operative societies in connection with getting land and obtaining loans.

Shri H. N. Dallas referred to the efforts made in earlier years by a few individuals who had constructed chawls which were now in a dilapidated condition. Though the owners had since gone into liquidation, the buildings were still there. He suggested that the Housing Board or Government should take over the maintenance of these buildings. This would obviate the need for construction of new houses to that extent.

Shri B. P. Patel replied to some of the points made by the previous speakers and said that institutional employers were in fact very keen on promoting housing activity for their employees. But there was a limit to the amount of subsidy to be paid, specially when it was known that out of this subsidy, a large share was required for payment of taxes to various authorities.

SECTION II : *Planning and Administrative Coordination, Siting, Materials and Designs.*

Initiating the discussion, *Shri K. B. Karnac* observed that in order to ensure proper coordination and planning of housing and allied activities, there should be only one appropriate authority in any particular urban area. The planning authority's function would be to survey the entire area and then to plan the construction of houses demarcating commercial, industrial, residential and other sectors. It would be necessary for the planning authority to get the co-operation of other bodies like the Port Trust, the Railways, and the Central and the State Governments. Proper planning would also expedite the extension of civic services like drainage, street lights, water supply, etc. to different areas.

Shri C. R. Desai observed that planning on a broader basis was necessary for achieving urban development in desired directions. As industry was mainly responsible for attracting population to towns, it was necessary to plan location of industries and the growth of townships and cities after taking into consideration the needs of the particular regions. It was also necessary to make the best use of land which was scarce. This would involve Town and Country Planning making it mandatory on all concerned to limit their activities in a particular manner. Without it, all activities would suffer and there would not be any co-ordination. For the proper implementation of this planning, there should be a suitable administrative machinery. A separate Ministry for Housing and Town and Country Planning would be required.

Shri M. P. More observed that the housing problem had to be viewed from two sides—the prevention of existing houses from collapsing and the construction of more houses. The need for statistical data based on proper investigation was acutely felt for planning the construction of houses. Without such data, it would be difficult to say exactly how many tenements were needed, what localities would be preferred and to what extent the resources were available and whether they were fully utilised. He supported the case for a separate Ministry for Housing and referred to the non-utilisation of funds by the Bombay Housing Board. He thought that the cost of construction by Government agencies was higher than that of private builder.

Shri N. K. Gandhi summarised the points made by him in his paper regarding land, materials and designs. He pointed out that

by use of ingenuity, technical knowledge and integrated planning, it would be possible to increase conveniences and comforts of the occupants and at the same time effect reduction in cost by judicious use of land, by suitably designing the building and its components, by making maximum and clever use of indigenous materials, by inventing better and cheaper substitute materials and making them available in plenty. He urged the need for a detailed "land use survey" and made several suggestions for reduction in cost of certain items in buildings like pannelled walls and doors and windows. He emphasised the need for privacy and sufficient living space in the designs for housing.

Shri M. J. Dubash summarised the points made by him in his paper. He pointed out that it would be possible to construct cheaper houses on a large scale by using prefabricated building components and materials and by introducing standardisation in materials and designs. He made the following main suggestions :—

- (1) Government or some agency should conduct an architectural competition which is long overdue. It should be judged not just from the point of view of economy but also from the point of view of its details which should lend itself to mass production and prefabrication.
- (2) Government should send abroad a team to study production and prefabrication techniques.
- (3) Housing should be treated as a separate industry as distinct from other industries.
- (4) It is necessary to put up semi-permanent factories in the heart of residential districts to turn out building components and cater to the housing needs of the locality in its proximity. After a locality is fully developed the factories (which must themselves be of demountable parts) may be shifted to other localities.
- (5) Legislation must be passed to allow prefabrication.

Shri W. X. Mascarenhas observed that the various problems relating to housing had been discussed at sufficient length and that what was needed was immediate and continuous action. In undertaking a large programme of housing, it was necessary to aim primarily at utility, simplicity and cheap cost in construction. The minimum requirements of privacy and decent domestic life should also be ensured. Once the dimensions and specifications, he continued, were laid down, the cost of construction would have to be brought down by adopting methods of standardisation and construction on mass scale. He agreed that industrialists should be asked to spend on housing of their employees but only to the extent industry could bear such charges. In connection with the availability

of space for construction of houses in Bombay, he referred to his suggestion made by him many years ago that a rail-cum-road bridge should be constructed across the Thana creek to connect the island with the main land and it should be further extended to connect Thana Town so as to have a circular railway system. It would then be possible to develop the whole east bank of the Thana creek in exactly the same way as the west bank had been developed. He endorsed the point of view urged by Shri B. P. Patel regarding the inquiry of the basis of municipal taxation in Bombay.

Shri P. K. Daruwalla pointed out that housing activity in Western countries had been very large in recent years and urged that a similar positive approach should be adopted here. He stated that the cost of tenements built by the Bombay Housing Board could stand comparison with the cost of tenements built by private investors, in spite of the fact that, in some cases, essential services had to be provided by the Board itself. He thought that if the Bombay Municipal Corporation could give co-operation by quickly providing facilities regarding sewage, water supply, road and street lights in the suburban areas, it would be possible for the building agencies to construct houses at a much faster rate.

Shri V. L. Gidwani clarified the points raised by the speakers regarding (a) municipal taxation and (b) facilities and amenities provided by the Municipal Corporation as under :—

(a) The basis of taxation had been embodied in the Municipal Corporation Act. Under its provisions, taxation was based on the general formula of rateable value which was fixed on the basis of the reasonable rent the property was expected to fetch. The Municipal Assessor's actions in this connection were not arbitrary decisions but were subject to interpretation by judicial authority. In many cases, the Municipal Corporation had to fix the tax after taking into consideration the actual facts in the area. If any change were to be made in this matter, it would be necessary to review the entire taxation arrangements.

(b) Every effort was being made to extend facilities to the newly developed area as early as possible, specially when prior intimation was received. There were, however, certain practical difficulties in some cases which caused delay. In many cases, suggestions made by the Municipal Corporation with a view to ensuring proper drainage were not receiving proper attention of the construction authorities. He felt that co-operation between the various construction agencies and public authorities could easily overcome any difficulties.

Shri H. V. Tahilramani observed that though ownership flats were the easiest way of providing houses by private efforts and of investing private money in housing, there was no formal recognition

given to them by municipal and other authorities. As a result, a very important source of finance for this programme was not being fully utilised. He urged that Government should recognise the usefulness of private builders and give them loans to put up houses.

The *Chairman* remarked that there was at present a lacuna in the law in connection with the status of ownership flats. If that was removed, more persons would come up to build flats on ownership basis and it would be possible to give loans for such construction and regulate the level of profits earned by the builders.

SECTION III : *Construction Agencies*

In initiating the discussion, *Shri L. S. Dabholkar* urged that co-operative societies were the only agency which would really be in a position to provide houses to all and, therefore, must be encouraged and stepped up. He welcomed the efforts made by certain institutional employers like the Bank of India and the Life Insurance Corporation to give loans at concessional rates of interest to their employees but felt that there was always a sort of mental pressure on those who occupied such houses as to what would happen to their families if they left their employments. The organisation of co-operative societies was the only satisfactory way. The construction of ownership flats by private builders had led to lot of complications regarding title to property.

He then referred to difficulties experienced by the co-operative societies in the matter of getting registration and obtaining concessions in the municipal taxation. He pointed out that these concessions were subject to such restrictions and strict legal interpretation by the Bombay Municipal Corporation that no co-operative society had been able to get the intended benefit.

He referred to the difficulties which the co-operative societies had to face in getting adequate funds from Government as and when required. He suggested that loans should be given to them at a lower rate of interest with a view to bring down the rents. He suggested that the Life Insurance Corporation should invest a part of its funds in co-operative societies.

He suggested amendments in the Land Acquisition Act and the Rent Act to enable the co-operative societies to obtain land easily for housing purposes.

He referred to the restrictions imposed by the Reserve Bank of India to prevent Joint Stock Banks from advancing loans to co-operative housing on the ground that such advances would be 'sticky'. He thought that as long as the advances were safe, there should be no objection and therefore urged that these restrictions should be relaxed.

The *Chairman* offered clarifications regarding some of the points raised by *Shri Dabholkar*.

(a) Regarding difficulties in the matter of registration, the *Chairman* said that as co-operative societies were entitled to certain

special concessions at the cost of tax-payers, it was the duty of the Registrar to make sure that these societies were bonafide ones.

(b) Regarding the rates of interest charged to co-operative societies, the money rates having generally gone up, the co-operative societies should not mind paying what was the actual rate of interest on similar investment.

(c) The Banks could not be expected to lock up their money by giving long term loans for construction of houses. However, if the co-operative societies could build up sufficient credit for themselves and played their part well, the Banks might, within certain limits, provide finance against house securities.

Shri M. P. More observed that the co-operative societies found the terms of the Bombay Co-operative Housing Finance Society as exacting as the latter viewed the terms offered to it by Government. He mentioned the possibility of raising finance from the employees and stressed the need for better co-operation between employees and employers.

Prof. G. M. Mandalia advocated the adoption of group housing scheme for private employees under which the prospective owners could themselves take part as builders, by contributing labour, after a short training. He thought that the rent of housing should not be more than 10 per cent of the income of the persons occupying the houses and that taxes on new buildings constructed with self-help should not be charged for a period of five years.

Shri K. R. Srinivasan explained why the Life Insurance Corporation was charging five per cent as rate of interest on the loans given to the Central Co-operative Housing Finance Societies. He said that the Corporation had to look after the interest of policy-holders and as such its premiums from the policy-holders and the interest on loans advanced were based on the minimum net yield of three per cent.

Shri G. C. Baveja suggested that Government should also provide housing accommodation to its employees and set a good example to others so that it could call upon other employers and industrial establishments to provide housing for their employees. He referred to the restrictive nature of advance given by Government to its employees for building houses. On one hand, it was the policy of Government to post government servants outside their home districts, and on the other, advances were given to them for building houses at the places of postings. He urged that advances should be given to government servants to build houses where they wished to settle after retirement.

Shri D. R. Pradhan supported that point of view of *Shri Baveja* regarding the need for a larger construction programme for housing

its employees by Government and quoted figures to show the size of the problem.

Shri H. J. Shah invited attention to the existing departmental contract form which was out-of-date and had no bearing on modern requirements. He pleaded for modification in the form with a view to avoiding delays, corruption and heavier cost of construction. He complained that building materials were not easily available in market due partly to the unrealistic policies followed by the State Trading Corporation.

Rai Sahib Bhagwandas described how a rapid construction programme had been carried out some years back in Karachi and emphasised the need for rooting out corruption which had been eating into the vitals of society. For this purpose, he urged that controls should be removed.

Shri W. X. Mascarenhas agreed with the point made by *Shri Shah* that the existing departmental agreement form under which powers regarding quantity of materials and workmanship were vested in Public Works Department Officers was very largely responsible for the high cost of construction and suggested that any dispute between the builder and Government or owner should be referred to arbitration. Regarding house-building by *Shramdan*, he stated that it would not succeed in cities where land was limited and valuable and a number of flats had to be constructed in the same building.

Shri C. R. Desai stated that though in initial stages a change in the departmental contract form might lead to higher costs, there was a case for changing the form provided both the supervising authority and the construction authority trusted each other. He observed that allegation of corruption in this connection was a symptom of mounting corruption in society and suggested that the Heads of the Departments should exercise greater authority and vigilance.

The Chairman, concluding the discussion, congratulated the Bombay Branch of the Indian Institute of Public Administration for having organised the Seminar. To focus attention on the subject, he suggested that a Committee consisting of *Shri B. P. Patel*, *Shri V. L. Gidwani*, *Shri C. R. Desai*, *Shri W. X. Mascarenhas*, *Shri N. S. Pardasani* and himself should be formed to draft a report in the light of discussions and conclusions reached. The Committee should endeavour to send copies of the report to the Government of India, all State Governments, Municipal authorities, etc. to invite attention to the recommendations of the Seminar. He thanked all the participants for their co-operation. He hoped that their efforts would contribute to lightening of difficulties of the Urban dwellers

and would have some influence on Government and other authorities for taking active interest in the problem.

Shri L. S. Dabholkar thanked the Chairman and the Bombay Branch of the Indian Institute of Public Administration for having organised the Seminar on an important subject.

Shri N. S. Pardasani, Honorary Secretary of the Bombay Branch of the Indian Institute of Public Administration, thanked all the participants for making the Seminar a success and expressed gratitude to the Chairman for having taken considerable trouble to conduct and guide the deliberations of the Seminar.

CONCLUSIONS AND RECOMMENDATIONS

The Seminar was called to consider how the shortage of housing in the urban areas could be made good as quickly as possible. In the absence of reliable data pertaining to areas other than Bombay State, the Seminar confined its recommendations to the Bombay State only. It hoped that the problem in other States would be tackled on similar lines.

The Seminar felt that the shortage of housing in urban areas was acute and the situation would grow worse if not tackled on emergency lines. In the absence of proper housing, living conditions were deteriorating, bringing in their train evil effects not only on the health but also on the morals of the people. The shortage in urban housing should, therefore, be made good as quickly as possible. The Government and the public should give this a high priority next only to food.

The Seminar considered the various aspects of the problem of urban housing under the following three heads :

- I. Financial Aspects including Resources, Taxation Policies, Incentives and Disincentives.
- II. Planning and Administrative Co-ordination, Siting, Materials and Designs.
- III. Construction Agencies.

I : Financial Aspects including Resources, Taxation Policies, Incentives and Disincentives

Regarding the provision of financial resources and the grant of adequate incentives to those who are expected to build houses and keep them in good repair, the following recommendations were made :

A. Resources

(i) In view of the acute shortage of houses in urban areas, there should be larger provision of funds for housing in the Third Plan.

(ii) Government, Local Authorities and Public Corporations should accept responsibility for housing their employees according to a definite programme spread over a period of about ten years.

(iii). The large-scale employers should undertake responsibility of housing their low-paid employees at a reasonable rent in relation to their wages. The excess cost to the employers should be considered as a necessary supplement to the wages.

(iv) The houses built by Governments, the Corporations and employers may be sold on hire-purchase basis to the occupants preferably through a medium of housing Corporation.

(v) Amounts accumulated in the provident funds of the employees should be made available for constructing houses for the employees.

(vi) The Life Insurance Corporation should give substantial help to housing by giving loans to co-operative Housing Societies.

(vii) The Central and State Governments should continue, and extend as far as possible, the scheme of granting subsidies and loans for housing industrial workers and low income group employees.

(viii) The establishment of House Building Societies should be encouraged by Government.

(ix) Persons in need of houses should be encouraged either directly or through co-operative societies to come out with their savings to provide a part of capital cost, the balance being given to them as loans to be returned with interest over a stated period.

(x) Concrete schemes suited to the financial resources of different sections of the people should be worked out in advance and popularised among them.

B. *Incentives*

(i) There is a wide gap today between the rent-paying capacity of the large body of people in towns and the economic return on the cost of construction. Every effort should, therefore, first be made to build modest houses which are within the means of the class of the people for whom they are intended. The capital cost of a house should bear a reasonable proportion to the income of the persons concerned as the rent-paying capacity is generally related to income. It is, however, necessary that certain minimum standards of decency and health are also observed.

(ii) The need for subsidising the construction of houses for industrial workers and other low income group people is obvious and has already been recognised. The present policy of loans and subsidies should, therefore, continue and be extended in accordance with the resources available. The responsibility of Governments, Central and State, would have to be shared by other bodies like Municipal Corporations and industrial employers.

(iii) The grant of subsidy can be legitimately claimed only for the weaker sections of the society. The rest will have to reconcile themselves to paying large proportion of their income, say 15 to 20 per cent, by way of rent. Unless this is accepted, housing will not be an economic proposition and no large-scale construction of houses can be reasonably expected to be undertaken by any agency—private, co-operative or otherwise. There is also a limit to which Government can subsidise the construction of houses.

(iv) It is noticed that the system of taxation, Central, State and Local, is such that the total burden on new houses, even when they are intended for low income group persons, is intolerably high and in some cities like Bombay exceeds even the total rent-paying capacity of the class of people concerned. This defeats the Government policy of encouraging housing by means of subsidies to keep down the rents. The situation has arisen due to lack of co-ordination among the taxing authorities. The basis of taxation should be net income rather than the gross income inclusive of the different taxes, the cumulative effect of which is very considerable. This question should be examined in detail and brought to the notice of the authorities concerned.

(v) Regarding the taxation by local authority, there are certain anomalies due to the calculation of the Municipal tax on the basis of gross rental value as in Bombay, and the operation of the Rent Act which has frozen the rents of old houses. As a result, the tenants of the new houses, who are already at a disadvantage as they have to pay much higher rents, are also required to pay proportionately more by way of municipal taxation which has, therefore, been acting as a disincentive to the building of new houses.

Municipal taxation should be rationalised by basing the property tax on the net rent and not on the gross rental value. In order to encourage housing, the rateable value as the basis of municipal tax should be calculated after deducting from the gross rent the statutory taxes to be paid to the Central and State Governments and the Municipal authorities. For this purpose, legislation, if necessary, should be undertaken. The loss in municipal revenues may be made good by imposing a suitable increase in rental value of frozen rents under the protection of the Rent Act, making tenants liable for the increased taxes to the municipal authorities the rent to be paid to the landlords.

(vi) It is necessary to provide certain measure of relief in Central taxation so as to enable investment in housing to obtain returns similar to those available to investment in small-savings. In particular, in the case of new houses carrying rent upto Rs. 100/- per month occupied by low income group families, the income accrued therefrom should be exempted from Central taxes for a period of ten years. The State Government and Local Authority should give a rebate of 50 per cent of the general tax and the urban immovable property tax for a period of ten years. In the case of new residential buildings, non-agricultural assessment on land should not be levied at least for the first period of five years after the completion of the buildings. Certain restrictive provisions in the Rent Act should be suitably modified so as to ensure that private housing accommodation is not exploited by tenants.

(vii) Individuals, Co-operative Housing Societies and Housing Institutions should be helped to obtain loans speedily at reasonable rates of interest on easy terms. This can be done by the Government guaranteeing the loans to the Housing Co-operative Societies.

(viii) Government should take steps to enable those who intend to build residential accommodation to secure requisitioned land for the purpose in developed sites at reasonable prices and within reasonable time.

II : *Planning and Administrative Co-ordination, Siting, Materials and Designs*

The following suggestions and recommendations were made :

(i) The influx of population in the overcrowded cities should be diverted by planning the location of industries in new areas where surplus labour is available. Co-ordination between various agencies—Central and State Governments, the Municipal Authorities, the large-scale employers, the Financing Agencies and the Housing Co-operatives—is necessary in order to secure a speedy and effective action for this purpose. There should, therefore, be at the Centre and in each State a separate Ministry of Town and Country Planning, Housing and Local Government to secure integrated action in providing good housing, diffusion of industries, provision of civic amenities to new areas and their proper development. Legislative and administrative measures should be taken to

- (a) control location of industries with a view to secure their dispersal, and
- (b) provide for subsidy and acquisition of land on compensation calculated on the basis of existing value of land as opposed to its potential use.

(ii) Master plans must be prepared by every Local Authority within a period of five years on the basis of modern town planning demarcating zones for various land uses including various amenities and open spaces. Green belts must be provided to prevent indiscriminate expansion of the town limits and its population.

(iii) The technical questions connected with quicker and cheaper production of building materials including the extension of the principle of prefabrication should be under the constant scrutiny of a standing body of building agencies whose advice should be made available to the constructing authorities from time to time.

III : *Construction Agencies*

The Seminar considered that encouragement of Co-operative Housing Societies by Government and the Municipal bodies would yield the best results, particularly in the housing of lower income groups. It would encourage not only self-reliance but also the building of a community life in urban areas where the bonds holding people together were so loose. It would further encourage the habit of thrift, because people would like to save money and pay for their own houses in easy instalments. There was, therefore, a strong case for a higher priority being given to Co-operative Housing Societies in the matter of providing finance, land, building materials, relief in taxation and grant of subsidies. The Seminar made the following specific suggestion for the purpose.

(i) Financial resources should be made available to Co-operative Societies at cheap rates of interest on a long term basis. The Societies can give the necessary security because at least thirty per cent of the cost of land and building is contributed by the members. The Central and State Governments, the Life Insurance Corporation and other investing agencies could help in this matter.

(ii) Suitable land should be made available to the societies. They cannot compete in an open auction. Suitable vacant lands of municipalities or of Government should first be offered to them. A provision for compulsory acquisition of land already exists and is being used for the needs of societies, but the general feeling is that the acquisition proceedings take too long a time and severely tax the patience and enthusiasm of the small man who has put his life-savings in the society. The acquisition proceedings should, therefore, be speeded up.

(iii) Building materials tend to go up in prices and some have even become scarce. Co-operative Societies should be given an adequate quota of controlled materials to enable them to carry out their building programmes as quickly as possible.

(iv) Some relief in the matter of municipal taxation is also necessary in order to give an incentive to the societies. Lower rates of house-taxes may be fixed for the initial period of five years and this will actually lead to a spurt in house-building activities and in course of time add to the income of the municipal bodies.

(v) Subsidies for housing of low income groups should continue to be given by the Government as is being done at present in the case of housing for industrial workers. The cost of construction

has gone up so high that it is difficult for the working and the lower middle classes to construct houses on which instalments have to be paid from their meagre incomes.

(vi). In order to ensure that the Co-operative Societies are not exploited by undesirable elements, it is necessary to provide for guidance and supervision of the societies. Recently there has been a tendency in Bombay to put up ownership flats constructed by private enterprise which are later converted into Co-operative Societies. Before Co-operative Societies are formed or sanctioned, the Co-operative Department should assure itself that there is no exploitation by private enterprise.

HOUSING ACCOMMODATION AND FINANCE

*Govt. of Bombay—Report of the Study Group on Greater Bombay:—
Summary of the important conclusions and recommendations of
Housing and Housing Finance Panel.*

The problem involved in the provision of housing accommodation and housing finance, as detailed in the above paragraphs, is difficult and intricate. We summarise below our conclusions and recommendations :—

1. Population in 1970:—The Population of Greater Bombay, which is at present about 43 lakhs, would reach about 60 lakhs by about 1970.

2. Absence of attractions for living in the Suburbs:—Large masses of people have been concentrating and living in the small area of the Island of Bombay. This is mainly due to the lack of sufficient foresight on the part of the authorities in not creating conditions which would provide reasonable attraction to the people to go and live in the Suburbs.

3. Lack of Open Space:—It is deplorable that there are practically no open spaces for recreation and no playgrounds for children in most parts of the City.

4. Vertical development not explored :—Vertical development with proper safeguards for light, air, health and traffic requirements, does not seem to have merited the attention it deserves in this rapidly growing city.

5. Minimum need of 3 lakhs of tenements:—The immediate need of new housing accommodation is 3 lakhs tenements costing about Rs. 240 crores and we recommend that it should be provided at the rate of 25,000 tenements a year before 1970. With the population of 60 lakhs, the shortage of accommodation will still be 3,25,000 tenements in 1970, in spite of providing the aforesaid 3 lakhs new tenements.

6. Construction of new houses in the City:—No appreciable addition to the existing population. Although the population in the Island of Bombay will reach the figure of about 35 lakhs by the end of 1970, realising that this is a social and a human problem and viewing it, therefore, in a practical and realistic manner we are driven to the inevitable conclusion that we shall have to reconcile

ourselves with the situation as it will develop and should resort only to such measures as will so far as possible prevent addition to the existing population by the provision of new houses.

7. Minimum increase in Open areas to 2,000 acres:—There are still a number of plots and areas which are vacant at present or which may become available later on in the island of Bombay upon which new houses can be constructed. It is not our suggestion that new houses should not be allowed to be constructed on such plots. We, however, most strongly recommended that when the existing old and dilapidated houses fall down or are removed, steps should be taken to keep the land on which they are built, as far as possible, as open space. Such adjustments should be made, that, at any rate, the existing open area in the City of about 400 acres is increased at least to about 2000 acres during the course of the next ten to twelve years, so that greater facilities could be provided for open grounds, recreation grounds, playgrounds, plots for building schools, as well as space for other social, cultural and public purposes; and such an environment be created so that the 35 lakhs of people, who are expected to be in Bombay by the end of 1970, may have better living conditions than those under which 31 lakhs of people in the City are living today.

8. Future development in the main in the Suburbs:—Necessity to create a new centre of activities in the Central Belt—Although no satisfactory conditions either in the matter of transport or feeder and main roads and express highways or for essential amenities like water supply, medical facilities, education, drainage, sewage, etc. have been created in the suburbs which would provide reasonable attraction to the people to go for and live in the suburbs, all future development in the main should be planned and located in the suburban areas. The wanting facilities will have, therefore, to be immediately provided for. Moreover, to achieve the desired end expeditiously, we strongly recommend that a new centre of activities like the Fort Area should be created in the Central Belt above the Bandra-Kurla Line, by locating all new Government Offices, Commercial and Industrial Houses, Banks, new Educational Institutions, Insurance Offices, Markets, etc. in the Central Belt. This will also ease the pressure on the lines of communications which are presently subjected to great stress and strain.

9. Construction of Rail-cum-Road Bridges over the Bassein and Thana Creeks:—Opening up of new areas:—The construction of the projected bridge over the Bassein Creek and the possibility of building a rail-cum-road bridge over the Thana creek will not only open up new areas for industrial development and absorption of the increasing population of Greater Bombay, but it will also provide the long missing links between the Island and Greater Bombay on

the one hand and the mainland beyond the same on the other. We, therefore, recommend that the work of constructing the bridge over the Bassein Creek should be taken in hand without delay and the construction of the bridge over the Thana creek should be taken in hand forthwith as soon as the possibility of such construction is found satisfactory, after the careful examination of all issues connected therewith from technical and other points of view.

10. Widening and modernizing of existing Roads and completing the construction of Express Highways:—Opening out of vast vacant tracts.—We recommend that the existing main roads in Greater Bombay should be sufficiently widened forthwith and brought upto modern standards to meet the increasing needs of growing traffic of goods and human beings and we also recommend that the work on the two projected Express Highways should be expedited and completed in the minimum of time as they will facilitate and help in the opening out of the vast vacant tracts in the suburbs for development.

11. Creation of self-contained Satellite Towns:—We recommend that the development should be so planned, taking advantage of modern knowledge, experience and art of town planning, as will create Satellite towns around the existing suburban Railway Stations of Andheri, Gorgeaon, Malad, Kandivli and Borivli along the Western Railway and Kurla, Chembur, Ghatkopar, Vikhroli, Bhandup and Mulund along the Central Railway. These towns may be made as far as possible, self-contained towns in every way, so that all amenities and employment opportunities can be found therein. This will also obviate the necessity by and large for the people living therein to travel long distances both in the morning and in the evening and reducing thereby the existing great strain on the Railways and other transport machinery of the City and the Suburbs.

12. Provision of facilities for developing vacant sites:—We recommend that the Bombay Municipal Corporation should be requested to carry out as expeditiously as possible the work of developing vacant sites in the suburbs by providing roads, water supply mains, drainage sewers, etc. and similar other facilities so that they might become available for building houses.

13. Standard of Minimum accommodation for housing:—The provision of single room tenements will only continue the existing sub-standard housing conditions for the people at least for the next fifty years. This will adversely affect the progress of the planned economy in this country, where efforts are made in all directions in raising the modern standards of life. After examining the question from all points of view, we recommend that the minimum accommodation for a family should consist at least of two living rooms and

a separate kitchen with sanitary and other essential modern conveniences.

14. Agencies for providing houses:—The agency for providing accommodation will be the Bombay Housing Board, the various employing authorities coming under the public and the private sectors the private investors and the Co-operative Housing Societies and individuals.

15. Why private investors do not go in for the Housing Industry:— Various provisions of the Rent Act and the great burden of taxes—Central, State and Local—have imposed such hardships on private investors that they have scared them away from the field and have left them with no enthusiasm or incentive to go in for the Housing Industry and build houses for the people of Low-Income Group which occupy about 86 per cent. of the available accommodation. Moreover, investments in small Savings Securities offer special inducements and a comparatively high return to private investors. We are convinced that unless, a fair and reasonable return of about 10 per cent net, after deduction of all out-goings, including all Central Taxes, can be secured by investing money in the building of houses, private investors will not be inclined to go in for the same with all its attendant risks. We, therefore, recommend that the Rent Control Act should be so amended as will enable the owners of the property to realize a net return of 10 per cent. on the amount invested by them in housing out of the rent that they are allowed to charge.

16. Giving a new momentum to housing activities:—Need to modify Rent Control Provisions and grant of relief and concessions.— We are glad to note that Government have recognised the necessity of fulfilling their responsibilities and have entered the field formulating schemes of public housing and made provisions in successive plans for subsidized housing for industrial workers, sweepers and occupants of slums and grant of loans at reasonable rate of interest to persons and co-operative societies of low income groups. The terms and conditions on which loans are given and the extent of subsidy that is given have not created the climate and the incentive which are necessary for undertaking housing construction on a large scale. We, therefore, recommend that the Government should not only substantially liberalise the conditions of the loan but they should also increase appreciably the quantum of subsidies given for the construction of houses. Among many other concessions the important ones which we have recommended are that (i) income from all new buildings providing accommodation carrying rent upto Rs. 100 per tenement per month should be exempt from Income-Tax, Super-tax and Wealth-

tax for a period of ten years and (ii) such tenements should be exempted from the operation of the Rent Control Act.

17. Agencies that should build the 3 lakhs tenements in 12 years :—

We have recommended that the undermentioned agencies should build every year the number of tenements mentioned against their names:—

The Municipal Corporation, 6,000 Tenements mainly for Industrial workers and partly for people coming under low-income group.

The Municipal Corporation, 4,000 tenements for their own the State Government, the Central employees.
Government, the Central Railway and the Western Railway together.

Individuals and cooperative Societies. 2,000 tenements for themselves and their members.

The Central and the State Governments. 8,000 tenements for housing employees of Industrial and Commercial establishments other than those provided for by the Bombay Housing Board.

Private Investors. 5,000 tenements for middle class people.

25,000

Thus the total number of tenements to be built per year will be 25,000. They will aggregate to 3 lakhs tenements in the course of the next 12 years ending with the year 1970.

18. Who will come under Low-Income Group Category:—Our conception of an individual coming under the low income group category is, one whose monthly family income is less than Rs. 500/-.

19. Finance required for building 25,000 tenements every year:—We estimate that provision of 25,000 tenements including the 5,000 to be built by the private investors for middle class people would cost about Rs. 20 crores on the basis of the cost of 2 living rooms and a kitchen. The total finance required for 12 years will, therefore, come to Rs. 240/- crores. We have estimated that the finance that will be required by the different agencies mentioned in paragraph 17 above will be as follows:—

Name of the Agency.	Amount of finance required.	Source of Finance.
1	2	3
I. The Bombay Housing Board.	4.25 crores for industrial workers on subsidised rent.	From the annual budgets of State & Central Govts.
The Bombay Housing Board.	0.50 crores for people of Low Income Group on economic rents.	
The Bombay Housing Board.	0.25 crores for site development.	
Co-operative Housing Societies & individuals of low Income Group.	1.50 crores.	
State & Central Governments and semi-Government bodies including Statutory Corporations.	3.00 crores for housing their own employees.	
	<u>9.50 crores.</u>	
	Rs.	
II. Central & the State Governments.	5.75 crores for housing employees of industrial & commercial establishments.	To be raised by borrowing from the market.
Private Investors.	2.75 crores for housing middle class people.	From their own resources.
Private Investors.	2.50 crores for housing middle class people.	Out of borrowings from financing Agencies.
	<u>20.50 crores.</u>	

20. Loans from Life Insurance Corporation and other Funds:— We recommend that the Private Investors as well as Individuals belonging to middle income group and the Bombay Cooperative Housing Finance Society Ltd. advancing loans to Co-operative Housing Societies of middle income group families should be enabled by the State to obtain loans from the Life Insurance Corporation Fund

and such other Funds which may be in a position to advance long term loans at a reasonable rate of interest.

21. Lack of Funds:—The major handicap of Co-operative Housing Societies. We recommend that Funds to the extent of Rs. 150 lakhs per annum should be made available to the Co-operative Housing Societies through the Bombay Co-operative Housing Finance Society Ltd.

22. Problem of repairing old buildings:—There are 18,000 old buildings containing about 1,61,3000 tenements in Greater Bombay. 6,000 of such buildings containing 57,000 tenements will finish their useful life within the next 5 years. Neither is it possible nor is it desirable to salvage these 6,000 buildings. As regards the remaining 12,000 buildings we recommend in their connection that whenever it is considered desirable and advisable repairs to them may be carried out to the satisfaction of the Municipal Corporation and the existing rents should be allowed to be increased by suitably modifying the Rent Control Act to enable the party concerned to charge rent after such repairs are carried out up to the level of the subsidised rent charged by the Government to the industrial workers, which is at present Rs. 30 per month per tenement.

FINANCIAL RESOURCES OF THE MUNICIPAL CORPORATION

by

SHRI S. M. Y. SASTRY

Financial Resources for the Housing Programme of the Bombay Municipal Corporation

(1) In the report of the Study Group on Greater Bombay, it has been suggested that the Corporation, the State and Central Governments, the Central and Western Railways should together construct 4,000 tenements per year for housing their own employees. This obviously is only an ad hoc estimate, and the number of tenements that may have to be constructed by the Corporation to house a major portion of its employees has not been really estimated.

(2) According to the Budget for 1959-60, the Corporation employs, exclusive of the employees of the B.E.S.T. Undertaking, a total number of 43,487 persons. Of these, 34,722 are employees drawing a salary of Rs. 100 or below per month and 8,042 are employees who are drawing a salary between Rs. 100 and Rs. 300 per month. If it is assumed that the Corporation should at least shoulder the responsibility of housing 80 per cent. of the employees drawing a salary below Rs. 100 per month and 60 per cent. of the employees drawing between Rs. 101 and Rs. 300, it would mean that it will have to provide housing for about 34,600 employees. As against this, the Corporation has so far constructed only about 6,000 tenements for all categories of its employees, including the essential services personnel. As a matter of fact, there is an award of the Industrial Tribunal directing the Corporation to provide housing for its entire Conservancy staff consisting of about 9,000 employees, which has not been fulfilled so far, only less than half the staff having been provided the necessary housing. Assuming that the Corporation will provide the balance of 28,600 tenements within a period of 5 years, it will have to construct 5,720 tenements per year. This no doubt appears to be an unrealisable programme, but at least the task should be completed within ten years and a minimum programme of 2,800 tenements per year must be provided for.

(3) Apart from housing its own employees, the Corporation is also charged with the responsibility of undertaking housing pro-

gramme for poorer classes. This is a responsibility which has devolved on it on the amalgamation of the Improvement Trust. Even if it is unable to discharge its responsibility towards general public in view of the fact that a separate Housing Board has been created, it still has to shoulder the duty of providing alternative housing for the tenants it would be dishousing in its schemes of development. On a recent examination, it has been found that the Corporation has to provide about 2,500 tenements to rehouse the tenants it would be dislodging from various plots which have been acquired by the Corporation for public purposes, such as construction of roads, schools, hospitals, etc. The need for re-developing these plots is very urgent. Also, most of these tenements are in a neglected and dilapidated condition. The sooner these are demolished, therefore, the better it would be for the Corporation. The Housing Board has made it clear that while it would provide housing for the industrial tenants who might be dispossessed of their tenements in any slum clearance scheme, the Corporation itself will have to provide all the alternative housing it needed both for industrial and non-industrial tenants to be dishoused in its developmental schemes. Likewise, for the implementation of the Town Planning Schemes, it is now found that providing alternative accommodation for the tenants to be dishoused has become a necessity. These requirements have not yet been estimated, but it would appear that it will be in the neighbourhood of another 2 to 3 thousand tenements. Assuming, therefore, that this entire programme of rehousing will have to be done within a period of 5 years, it would be seen that the Corporation will have to construct about 1,000 tenements per year for outsiders. In addition, the Corporation is called upon to provide for house collapse cases at least two to three hundred tenements per year and as the house collapses increase in future, the need for providing more tenements also will arise.

(4) A few years back, the Corporation approved a proposition that it should construct 4,000 tenements per year. It looked an over-ambitious aim, but in the light of what is stated earlier, it would appear that this is an essential programme which it should adhere to. This is in addition to any programme of construction as a part of slum clearance scheme in respect of which some loan and subsidy is available from the Central and State Governments.

(5) The Corporation has decided that it shall not construct hereafter any tenements on chawl system; that every tenement constructed by it shall be a two-room self-contained or double-room self-contained tenement. It is estimated that the cost of each tenement would be about Rs. 6,000/- exclusive of the cost of land. Owing to rising trends in prices, the costs are actually going up but this figure is adopted for purposes of illustration. On this basis, the Corpora-

tion will have to find its own finances to the extent of Rs. 2,40,00,000 per year.

(6) This amount of Rs. 2.40 crores per annum required for the housing programme will as per the budgeting procedures, have to come from borrowing. The total outstanding loans of the Corporation by the end of the financial year 1959-60 are estimated to be Rs. 52.60 crores. Statutorily the Corporation can borrow to a limit of twice the rateable value of properties in Bombay, according to which the Corporation can raise a loan to the extent of Rs. 71.75 crores. There is accordingly sufficient margin in its borrowing capacity and, therefore, there would be no difficulty in the Corporation programming to bear the additional loan liabilities.

(7) If there is a possibility of recovering a rent which would cover all the expenses including interest and other loan servicing charges, though not provide any profitable return, it can be assumed that the problem of financing is only one of raising sufficient capital resources to cover the programme of construction and the only problem to be faced is integrating the borrowing programme of the Corporation with the programmes of the State and Central Governments. But it is obvious that housing to be successful and within reach of the prospective tenants has to be subsidised. The Corporation has, therefore, to find not merely the capital resources but resources for meeting the annual recurring cost of subsidy as also the maintenance cost of the properties. The interest and other loan charges and the subsidy must come naturally from current revenues.

(8) The Corporation has taken a decision that in respect of its employees to whom tenements are to be provided as an employer where rent can be charged (in respect of employees in some essential services they are required to be given free housing), they would charge a rent of 15 per cent. of the emoluments of the employee or Rs. 12 per 100 sq. ft. of area per month whichever is less. It is found that the economic rent of a tenement costing about Rs. 6,000 as mentioned above would be Rs. 45 at 9 per cent. of the cost of construction and ignoring the cost of land. As against this, the average rent recovered from the Municipal employees would amount to Rs. 20/- which means that a subsidy of not less than Rs. 25 per tenement has to be given in this housing. Similarly, in respect of the outsiders also, for the 2,000 tenements that the Corporation will have to provide, it will have to find recurring resources for meeting the subsidy of about Rs. 16 per tenement. The average dimensions of tenement are 240 sq. ft. and on the basis of Rs. 12 per 100 sq. ft., the rent would come to Rs. 28.8 or say Rs. 29. The average subsidy to be given will amount, therefore, to Rs. 16 per tenement. As against the rent of Rs. 29 that can be charged to the outsiders, Rs. 29.29 represents the interest and other services charges alone

on the loan assuming a currency of 30 years, the normal maximum period for which, a loan may be raised. Loans today are in fact raised for much shorter periods of 12 to 20 years and the burden will, therefore, be correspondingly greater.

(9) In this connection the fact that the housing programme will have an indirect effect on the Municipal finances must also be recognised. For, the bulk of Municipal finance is raised as a property tax. It is found that out of a total income of Budget 'A' of Rs. 1123.50 lakhs, the revenue based on taxation on property comes to Rs. 629.65 lakhs, i.e. about 55 per cent. of the total income. The next largest single source of revenue is from Town Duties which are estimated to yield an income of only Rs. 88.77 lakhs. Any concessions given in respect of property taxation, therefore, will affect the yield of property taxes. In respect of Municipal housing for its own employees, for example, the Corporation will have to forego the entire taxes and to the extent, that too will be a burden. Similarly, even in respect of housing for outsiders, the income from rents would not cover taxes and, therefore, in respect of any large scale Municipal housing not merely the actual finances required for construction and subsidy in rent, but the indirect effect in reducing the revenue of the Corporation has to be taken into consideration. This affects the capacity of the Corporation to undertake housing on a large scale for it will be lacking the resources to meet the obligations and render necessary civic services.

(10) In the circumstances, it is apparent that providing housing on a rent which would not cover even the servicing of the loans would place so heavy a burden on the Corporation's resources that it will not be able to undertake any sizable programme. One way of reducing the burden will be to provide that the capital resources required will be available either at lesser interest or at no interest. It does not appear probable that either the Central or the State Government will be in a position to advance any loans free of interest for the financing of Municipal Housing Schemes. Nor does it appear feasible that any loans will be available at less than 4 per cent. interest. The only feasibility, it would appear, would be to finance a part, if not the whole, of a housing programme from current revenues. The Corporation did make an attempt in two years to provide housing from current revenues. A total amount of Rs. 75 lakhs was so provided but this had to be given up as with the revision of pay scales, the revenue resources were not sufficient to cover current expenditure. But this would appear to be a direction in which it would be desirable that we should progress. If, for example, a special property tax of 2 or 3 per cent. of the rateable value is levied, the proceeds of which will be specifically devoted to the construction of new tenements, we would be in a position to provide housing at subsidised rents without further adverse financial com-

plications. This can be done at least in respect of the housing it has to provide for outsiders, even if in respect of housing the Municipal employees, it may find the resources in other ways. At present the tax yield is about Rs. 23,00,000/- for each per cent. of the rateable value. It has been mentioned that the Corporation has to provide about 2,000 tenements for outsiders. This would require a capital finance of Rs. 1,20,00,000 and at 2 per cent. tax, slightly over one-third of the programme can be so financed.

Refinements and adjustments based on considerations of equity such as levying the tax at a slightly higher rate in respect of old tenements where rents are low and an increase in them is bearable than in respect of new tenements can also be thought of.

(11) A second fruitful source would appear to be in the direction of mobilisation of resources from the prospective tenant. It has been found that notwithstanding the irksomeness and defects, purchase of flats in buildings where flats are being constructed and disposed of on ownership basis has become very widespread. This would indicate that while no individual is in a position to construct an entire building, which of necessity in Bombay has to be a multi-storeyed building, there are individuals who are in a position somehow or other to mobilise sufficient resources for acquiring a portion (flat) of a building. If the Corporation, therefore, can secure finances by taking the advance from the prospective tenants, it would be feasible to mobilise a sizable part of the amount required for its housing programme. It can be arranged either that the amount so advanced can be returned to the tenant by a rebate in rent or it might be possible to evolve a system whereby the Corporation would encourage the formation of a limited or co-operative society of the prospective tenants who would ultimately take over the building. We may say that a programme of this sort may be envisaged in respect of persons drawing an income between Rs. 300 and Rs. 500 and the burden of providing housing for its own employees also can to some extent be mitigated by bringing within the scheme Municipal employees of that salary group also. A Scheme of a similar nature but much smaller in scope was tried by the Corporation in its Wadala Housing Scheme and it has been found to evoke tremendous response.

THE INCIDENCE OF TAXATION

by

SHRI B. P. PATEL, I.C.S.

The Problem of Urban Housing with Special Reference to the Incidence of Taxation in the City of Bombay

The demand for housing in urban areas in India has been increasing recently on account of the operation of such factors as the natural growth of urban population, the inflow of people desiring to take advantage of increased employment opportunities following the second world war and economic planning, the influx of refugees as a result of Partition and the rise in per capita incomes. There is also the replacement demand and the demand for larger, better and more congenial accommodation. The urban population in India went up from 2.7 crores (11.4 per cent) in 1921 to 6.2 crores (17.3 per cent) in 1951 when the total population was 35.7 crores. Out of this total urban population of 6.2 crores, 38 per cent lived in 73 cities (of population of one lakh and above), and 30 per cent in 485 major towns (of population of 20,000—1 lakh). The growth of urbanization has been much faster since 1941 than in the earlier years. The Second Plan has estimated that the urban population would grow at about 33 per cent during 1951-61, but the Asoka Mehta Committee has placed this rate at 4.8 per cent per annum. In the preliminary discussions on the Third Plan, the increase in urban population has been assumed at a higher rate of 4 per cent per year.

Though the demand for houses as reflected in the growth of urban population has risen quite fast, the supply of houses has failed to rise commensurately. Thus, while the urban population increased by 10.6 million and 18.1 million during 1931-41 and 1941-51, the number of occupied houses increased only by 1.8 million and 1.7 million respectively during the two decades. The findings of the National Sample Survey reveal that whereas urban population was increasing at the rate of 3 per cent to 4 per cent per annum, new houses were being built at the rate of 2 per cent to 2.5 per cent only. The Environmental Hygiene Committee estimated the housing shortage in urban areas at 18.4 lakh houses in addition to the need for 10 lakh houses for displaced persons. The Second Plan has

placed this figure at 2.5 million (for 1951). The gap must have widened still further during the last few years.

For the city of Bombay, the increase in the number of properties is estimated at about 17 per cent during the last 17 years, while the City's population has increased by 200 per cent during the period. The housing shortage in the city is estimated at about 3 lakh tenements, including about 50,000 tenements required to replace those that are dilapidated and may disappear during the next few years.

House construction used to be the almost exclusive sphere of private enterprise in pre-war years. But constructional activity by private landlords considerably went down during the Second World War and immediate post-war years. Some industrial and commercial concerns have been building houses for their own employees. Public authorities such as Central Government and State Governments, Municipalities and Port Trusts and Railways and Public Corporations have been building houses for their own employees or assisting their employees in solving their housing problem through such measures as the Subsidized Industrial Housing Scheme and the Low Income Group Housing Scheme. Co-operative housing societies are also being encouraged to put up houses for their members.

Data regarding the actual number of houses constructed during recent years are not readily available. Certain rough estimates have, however, been made. The Taxation Enquiry Commission estimated that in 1953-54, the total investment in urban private housing was of the order of Rs. 125 crores. The Second Plan has estimated that about 6 lakh house tenements were provided by the private sector during the First Five Year Plan. A recent survey of investment in construction activity in Bombay city conducted by the Department of Research and Statistics of the Reserve Bank of India has estimated that a total floor area of 20.6 lakh sq. ft. and 25.4 lakh sq. ft. was added during 1955-56 and 1956-57 at the total cost of Rs. 3.68 crores and Rs. 4.38 crores respectively, of which 15.5 lakh sq. ft. and 17.4 lakh sq. ft. were by way of new construction. The few facts mentioned above bring out very clearly, that while the demand for houses in the urban areas has been increasing very fast, the supply of houses is lagging far behind the demand, in spite of all the efforts that are put in by individuals, institutions and public authorities alike.

The shortage as well as the high cost of suitable sites and building materials, the high level and inequitable methods of municipal and other taxes on buildings and Government interference under the Rent Act have been the main factors responsible for the comparatively slow progress of house construction in the city of Bombay. As population has been increasing rapidly the demand for and the prices of building sites have risen steeply. Even in the

suburbs of the City land value varies between Rs. 15 to Rs. 50 per sq. yd. Similarly the cost of building materials (such as bricks, sand, teak, cement, steel, tiles, electric wiring etc.) and labour charges have risen to about 3.4 times their pre-war levels. Municipal taxes, income tax and other taxes such as Urban Immovable Property Tax, Non-agricultural Tax, Estate Duty etc. have been pressing heavily on house owners. The burden of taxes is estimated to have gone up by about 40 per cent since 1940. Then there is the Rent Act which has not only put a ceiling on the rents in 'old' buildings but has also considerably reduced the house owner's right in allotting tenements to any person he likes. In fact it is extremely difficult for him to get a portion of his house for his own occupation, though the Act provides for this. While the basic rights implied in ownership are denied to the house owner, there are quite a few tenants who have been abusing their tenancy rights. Some of them are actually 'trading' in their tenancies. The right given to the tenant in a new building to go to a court of law for getting the 'standard rent' fixed at any time during the tenancy has been creating a good deal of uncertainty and causing much inconvenience to the landlord. It is the adverse effects of all these factors on the economic as well as the psychic return to the house owner that should therefore largely explain the shortage of housing in the City, as far as the construction of houses by private individuals is concerned.

It seems that the variety and the level of taxation together with certain measures adopted by the Government and the Municipal Corporation have created a situation which far from providing incentives tend to inhibit the activity of constructing new houses. The situation is sought to be remedied by calling upon public authorities and institutional employers to undertake construction of houses on the basis of substantial subsidies particularly for families with income not exceeding Rs. 500/- per month. The following two typical cases will illustrate the gravity of the situation in Bombay city.

First, let us examine the position of a middle class person retiring on a pension of about Rs. 700/- per month and cash resources of about Rs. 80,000—the amount of his provident fund and other savings. He can no longer claim accommodation provided by Government and has to find house for the family. Two courses are open to him. He may try to secure a flat of pre-war construction or build a house of his own. In the latter case, he has to spend about Rs. 20,000 on land for the site in one of the suburbs and Rs. 60,000 on the construction of 5-6 rooms. The 'standard rent' of this building would be Rs. 6,300/- per year (on the basis of $5\frac{1}{2}$ per cent of the land value of Rs. 20,000/- and $8\frac{2}{3}$ per cent of the value of the building structure of Rs. 60,000/-). The rateable value of the building would be Rs. 5,323/- per year, on which the Municipal taxes payable are as under :

General Tax at	19-3/4 %	Rs. 1,051
Water Tax at	4-1/2 %	Rs. 240
Halalkhor Tax at	3-1/2 %	Rs. 186
		<u>Rs. 1,477</u>
Education Cess	1-1/2 %	Rs. 80
Urban Immovable Property Tax (State Govt.) at	5 %	<u>Rs. 1,557</u>
		Rs. 266
TOTAL ..	34-1/4 %	<u>Rs. 1,823</u>
Non-agricultural Tax (5/8)		125
		<u>Rs. 1,948</u>

In addition to paying Rs. 1,948/- as municipal and other taxes, the house owner has also to pay an additional amount of income tax consequent on building the house. This works out as follows :

Rental Value		Rs. 6,300
Less : 1/2 General Tax	19-3/4 %	Rs. 526
1/2 Water Tax @	4-1/2 %	Rs. 120
1/2 Halalkhor Tax @	3-1/2 %	Rs. 93
Total admissible deductions	..	Rs. 739
		<u>Rs. 5,561</u>
Less : Deduction being Self-occupied		Rs. 1,800
		<u>Rs. 3,761</u>
Annual Value taken @ 10% of total income		Rs. 900
Less : 1/6 Repairs	Rs. 150	
Insurance (estimated)	Rs. 85	Rs. 235
Total Property Income for purposes of income tax		Rs. 665
Pension income	..	Rs. 8,400
		<u>Rs. 9,065</u>

The Income tax chargeable on Rs. 9,065 would be as follows :

Income tax	..	Rs. 332.85
General Surcharge @ 5%	..	Rs. 16.64
Surcharge on unearned income @ 15%		Rs. 8.98
Total tax liability	..	<u>Rs. 358.47</u>
Less : Tax on income of Rs. 8,400/-		Rs. 286.65
Net additional tax payable	..	<u>Rs. 71.82</u>

After paying Rs. 1,557 as municipal taxes, Rs. 266/- as Urban Immovable Property Tax, Rs. 125/- as Non-agricultural tax and Rs. 71.82 as additional income tax, the owner will be left with

Rs. 4,280/- per year, out of which he has to spend for repairs, maintenance and insurance which may be taken at about Rs. 704/-. He has also to provide for depreciation which may be taken at about Rs. 600/- (at the rate of 1 per cent on the value of the structure). The owner is thus finally left with a net return of Rs. 2,976/- per year, which works out at 3.72 per cent (on his investment of Rs. 80,000) as against the tax free yield of about 3.50 per cent (at compound interest) available from Small Savings and a tax free dividend of over 6 per cent. from first class stocks and shares of limited companies plus the possibility of capital appreciation and/or increased dividends. There is also the uncertainty about the future level of municipal and other taxation as also the imposition of new taxation on property. Indeed, considering the fact that building property lends itself easily to taxation and in view of the past experience, prospective building owners may be feeling that the incidence of taxation on building property may increase in future. This may have been operating as a disincentive.

If, as mentioned above, a person invests Rs. 80,000/- in a house, he will have to pay Rs. 227/- per month by way of taxes, insurance and maintenance etc. so that he will be left with Rs. 473/- per month out of his pension. If on the other hand, he manages to get a house for which he pays about Rs. 230/- per month as rent, he will be left with a pension of Rs. 470/- per month. To this must be added his income from investing Rs. 80,000 which may be taken at about Rs. 400/- per month, so that his total income will be Rs. 870/- per month, with the further difference in the former case he is left with a wasting asset which will progressively disappear and in the latter case, the capital will remain intact, which if anything is likely to appreciate.

There is of course one assumption made in the above calculations, which may be mentioned here, viz. that the owner will not rent out any portion of the premises, the whole of which he will occupy himself. Considering the size of the family at the time of retirement and the type of housing accommodation which a man so highly placed as to get a pension of Rs. 700/- per month is used to and also taking into account all the worries consequent on letting a portion of the house, it is reasonable to expect that such a house owner will occupy the entire premises himself. Reference may also be made here to the psychic advantage derived from living in one's own house. But as against this advantage must be set off the inconvenience that the house owner and other members of his family have to suffer on account of staying in a suburb and the transport costs they have to incur for coming to and returning from the heart of the City.

If the premises referred to above are rented out, the net return to the owner is still less. While the amount of Municipal taxes

including Urban Immovable Property Tax remains more or less the same, the owner loses the concession in income tax permissible for self occupation. He will have to pay an additional income tax of Rs. 516/- per year and also to spend about Rs. 331/- per year for collecting the rent. The net return on his investment would thus be reduced to Rs. 2,327/- per year which works out at about 2.9 per cent per annum.

Another instance—of an institutional employer constructing houses for employees—gives a still harsher picture of the situation for the new builder. A tenement suitable for a low income employee in Bombay costs at present at least Rs. 8,000/- the rental value of which may be taken at about Rs. 800/- per year or Rs. 67 per month. Out of the gross rent of Rs. 800/- per year the employer has to pay the following Municipal taxes and Urban Immovable Property Tax on the rateable value of Rs. 676/-

General Tax at	19-3/4 %	Rs. 133.51
Water Tax at	4-1/2 %	Rs. 30.42
Halalkhor Tax at	3-1/2 %	Rs. 23.66
Education Cess (1/2 of 1 1/2%) = 3/4%		Rs. 5.07
		Rs. 192.66
U.I.P. Tax at 5 %		Rs. 33.80

Rs. 226.46

The additional income tax payable would be as follows :

Rental Value	..	Rs. 800.00
Less : 1/2 General Tax	..	Rs. 66.75
1/2 Water Tax	..	Rs. 15.21
1/2 Halalkhor Tax	..	Rs. 11.83
		Rs. 93.79

Rs. 706.21

Less : 1/6 Repairs	..	Rs. 117.70
Collection charges	..	Rs. 42.37
Insurance (estimated)	..	Rs. 8.40
Property Income	..	Rs. 537.74
Income Tax at 45 per cent.	..	Rs. 241.98

Total taxes and expenses, which will have to be paid (even ignoring the Non-agricultural tax) would be—

Local taxes	..	Rs. 226.46
Income tax	..	Rs. 241.98
Repair charges	..	Rs. 117.70
Collection charges	..	Rs. 42.37
Insurance	..	Rs. 8.40

Rs. 636.91

If depreciation at 1 per cent is allowed Rs. 60/- will have to be deducted, which takes the total to Rs. 696.91 leaving a net return

of Rs. 103.09. This gives a net return of 1.29 per cent per annum, which compares very unfavourably with the rate of return available from other investments, and especially as against the rate of net (business) profit of the institution. Even if the employer is to earn from this investment in housing a net (tax free) rate of return equivalent to that which would be available on Government securities, the rate of return should be about 2.3 per cent. If therefore a net rate of about 2.3 per cent is to be obtained on the investment of Rs. 8,000/- per tenement, the gross rent per tenement per year will have to be about Rs. 1,200/-. The following are some of the relevant calculations :

Total rental income	..	Rs. 1200
Rateable value	..	Rs. 1006
General tax	..	Rs. 198.69
Water tax	..	Rs. 45.27
Halalkhor tax	..	Rs. 35.21
Education cess	..	Rs. 7.54
		<hr/>
U.I.P. Tax	..	Rs. 50.30
		<hr/>
		Rs. 337.01

Computation of Income Tax :

Rental Income	..	Rs. 1200.00
Less : 1/2 General Tax	..	Rs. 99.35
1/2 Water Tax	..	Rs. 22.63
1/2 Halalkhor Tax	..	Rs. 17.60
		<hr/>
		Rs. 1060.42

Less : 1/6 Repair charges	..	Rs. 176.74
Collection charges	..	Rs. 63.63
Insurance (estimated)	..	Rs. 8.40
		<hr/>
		Rs. 248.77

		<hr/>
		Rs. 811.65
Income tax (45 per cent)	..	Rs. 365.24
Local taxes	..	Rs. 337.01
Income tax	..	Rs. 365.24
Repair charges	..	Rs. 176.74
Collection charges	..	Rs. 63.63
Insurance (estimated)	..	Rs. 8.40
		<hr/>
		Rs. 951.02

Plus : Depreciation	..	Rs. 60.00
		<hr/>
		Rs. 1011.02

Net income	..	Rs. 188.98
		= 2.36 %

It is thus clear that the burden of taxation levied on house property by the Municipal Corporation, the State Government and the Central Government has become quite heavy and together with the other measures such as the Rent and the Estate Duty, it has been operating as a disincentive for house construction and house maintenance by individual owners and institutional employer alike. Nor are co-operative housing societies free from all these levies and restrictions. In fact they have, in addition, difficulties of their own. The cumulative result has been that the housing problem in the City has become quite serious which has in its turn given rise to many a dishonest and illegal practice and a good deal of litigation and waste of national resources—time, energy and money. There have been innumerable cases of 'pugree', 'advance' and 'good-will' which are the devices employed to pay the house owner moneys in addition to what the law permits him to receive from the tenant, so as to bring the actual return nearer the economic return. It cannot be ignored that economic forces are far too powerful to be controlled merely by legislation. There is such a wide disparity in the economics of owner-occupied new accommodation and the old rent premises that those who can and will wield influence are encouraged to get hold of an old rent house by invoking the assistance of authorities and friends, even if they have the resources to construct a new house for themselves and would in normal circumstances resort to this straightforward course. Obviously, there is an urgent need for keeping to the minimum situations which give rise to these undesirable tendencies and evasions of law—direct and indirect.

It is indeed a serious matter that even in such a vital and primary human want as housing the incentive for initiative and action of individuals and institutions alike is so considerably reduced and the dependence on heavily subsidized houses built by public authorities has so greatly increased. The fact that even a person so highly placed in life as to have retiring benefits and savings of about Rs. 80,000/- and a pension of Rs. 700/- per month does not find it worth his while to build a house for himself on retirement is indicative of how public policy has been operating in this sphere. Nor have (private) institutional employers enough incentive to build houses for their employees.

The moral is obvious. The man who builds a new house even for himself is penalised. He is subjected to cumulative and prohibitive taxes by the various taxing authorities. His capital (invested in the house) depreciates continuously and he has to pay the same amount by way of direct taxes and maintenance of the house as the rent of an old-rent tenement. The occupant of the latter is regarded as worthy of legal protection not only as regards rent but also in regard to the municipal taxes. On his tenement the taxes amount to say Rs. 70/- per month but the man who creates addi-

tional housing accommodation must pay for enjoying the very same municipal services as much as Rs. 168/- per month by way of taxes alone to the various authorities.

* A similar inequity, perhaps harsher in its incidence is patent in regard to housing for the low income groups of citizens. It will be seen from the relevant calculations set out above that an employer who is good enough to construct a house for his low-paid employees must pay Rs. 19/- per month to the Municipal Corporation and another sum of Rs. 20/- per month to the Central Government. These families belong to categories of persons who may be paying Rs. 15/- to Rs. 35/- per month on the old-rent premises. The authorities are particularly solicitous for creating additional housing accommodation for them at reasonable rents, or at reasonable costs through their co-operative housing societies. But each one of the authorities regards its method of taxation so sacrosanct that the cumulative effect of the various taxes results in paralysing the very activity they desire to promote. They regard that the rent should not reasonably exceed say Rs. 25/- to Rs. 35/- per month and yet when accommodation is provided at these rents by beneficent employers or by the citizens themselves by resorting to the co-operative form of organisation, taxation is sought to be levied on unrealistic calculations of economic rent or by applying the analogy of inflated rents under scarcity conditions.

What justification could there be for the local municipality to levy Rs. 19/- per month by way of taxes on this type of tenement when for a complete old tenement the entire rent may be of the order of Rs. 19/- and taxes one-third that amount? This is the impact of direct taxes. A variety of indirect taxes like the levies on cement and steel, octroi or town-duties at the time of import and sales tax at the time of purchase of building materials inflate the cost of construction. It is not easy to work out the actual incidence thereof but they do add quite a significant amount to the costs of construction.

An important shortcoming of our public policy has of late been compartmental thinking. When the Five Year Plans run into thousands of crores of rupees and the annual budgets into hundreds of crores, a feeling is some times created that what one authority or department needs or spends is just a small portion of the total sum in view. It has to be realised, however, that if every department of every public authority and Government thinks on these lines, the total resources to be raised would be very considerable; and since the taxable capacity of the vast majority of our people is limited, some additional burden falls on a small group of compara-

tively better off persons but the main burden falls on the very persons who are sought to be helped. In this process the cost of overheads on collection and distribution of funds goes on mounting which defeats the objectives of self-help and decentralisation of economy and authority.

A more rational and integrated thinking on the subject is, therefore, called for. Given the will, it should not be difficult to find a measure of relief and equity if not a clear-cut solution. The object should be to devise a system which would not undermine unduly the revenues of the Corporation, to bring about an equitable incidence of municipal taxes on the occupants of different premises who enjoy the benefit of the municipal services and to provide an incentive to undertake construction of new housing accommodation.

The reform should, it seems, proceed in three important directions. Firstly, the agency for construction should be such as would require the prospective occupants to contribute their maximum share to the capital cost and reduce the overhead costs of administration and maintenance to the minimum. The subject of 'Agencies for Construction' is studied by another section of the Seminar. Suffice it to say here that for a variety of reasons—financial, social and moral—co-operative housing societies will be the fittest agency for the purpose, except for persons who are subject to frequent transfers and cannot be expected to settle down in the city where they earn their living.

Secondly, there should be some tax relief in deserving cases. The Income Tax Act permits a deduction of $1/6$ of the rental value for the purpose of repairs, the Bombay Municipality permits only $1/10$. It is difficult to account for this disparity, except that the Municipality needs to have larger revenues by permitting smaller deductions. It is felt therefore that the deductions permissible by the Municipality for repairs should be raised, from $1/10$ to $1/6$ of the gross rental value.

Similarly it is necessary that the Municipality should offer some relief from taxation for self-occupation as is done under the Income Tax Act and by some other municipalities in the country. There is quite a good case for a distinction being made between a house occupied by the owner himself and one which is rented out. The owner-occupier should get some relief from municipal taxation, especially at the present time when house construction by private individuals needs to be encouraged. The method of assessing institutional employees in regard to income tax on income derived from the rent recovered from their own employees also needs to be reconsidered.

The grossing element of taxation is inflating the rental value as the basis of assessment should be remedied. It is suggested that the basis for the municipal and income-tax assessment should be the net rental value after deducting from the gross rent the taxes paid and the estimated cost of maintenance and repairs. The same result could be achieved by assessing the rental value of the residential properties at 3-1/2 percent of the cost of land and 5 per cent of the cost of construction in the case of all new constructions with a further reduction of the latter percentage to 4 in the case of housing of low-income groups. It would be open to assess properties higher where the actual rents received exceed the figure of rental value as calculated above, plus the taxes.

Thirdly, the Rent Act should be amended suitably so as to remove or reduce the serious inequality that has crept into the living conditions of Bombay's population since the Second World War and particularly since the enactment of the Act. There is a wide disparity between the 'old rents' and 'new rents.' As against persons who have been occupying old premises, the rents in respect of which been controlled, those who are occupying new houses are paying almost four to five times the rents paid by the former set of persons. Persons staying in the rent controlled premises are therefore enjoying a huge consumers' surplus, while others who occupy new houses/tenements have to pay very heavily. Because the rents and the rateable values of the old buildings are low, the municipal and property taxes payable are also low while in the case of new buildings the rents, rateable values and municipal and other taxes are high. The occupiers of new houses are therefore in a way subsidising the occupiers of old houses. It is necessary that this inequity should be reduced, if not eliminated altogether, and this can be done by changing or interpreting liberally the basis of municipal taxation. It would be quite reasonable to assess the rateable value of the old properties at 50 per cent higher than the level at which the rents have been pegged at present by law. There is no scope for levying this additional burden on the landlord in the case of rented properties. It would be only fair that the increase in taxes is borne by the actual occupant who enjoys the benefit of municipal administration and is artificially protected in regard to the rent far below the market rate.

Pending the amendment of the Rent Act, there is considerable scope for the municipal authorities to interpret the law liberally so as to reduce the inequities of taxation and to encourage self-help and to promote the building of residential accommodation. The term rateable value is defined as the rent for which a building

might reasonably be expected to let from year to year. It is nowhere laid down that the yardstick should be the rent to be charged by professional builders to needy occupants. There is no point in assuming a return of $8\frac{1}{3}$ per cent in favour of an owner-occupant or institutional employer, when we see that on the basis of the present methods of assessment the rate comes to less than 4 per cent in the case of the former and less than 1.5 per cent in the case of the latter. On the other hand, it would not only be legal but perfectly legitimate and proper to take the letting value at about Rs. 150-250 per month in the case of a middle-class family and Rs. 25-35 in the case of a low-income family. This is the level of rent at which the bulk of these tenements could reasonably be expected to let from year to year. Any other basis should be regarded as just fortuitous or of a temporary character. Insistence on the prevailing practice in the Bombay Corporation is bound to multiply difficulties and anomalies in course of time.

THE BUILDING MATERIALS

Govt. of Bombay—Report of the study Group on Greater Bombay :—observations of the Building Materials Panel.

The essential building materials whose supply at reasonable rates will have to be assured are bricks, sand, cement, crushed stone, timber and steel. Bricks, Sand and crushed stone are produced locally or in the localities near about. Cement, timber and steel are produced elsewhere and they are transported here by rail or by sea.

It is estimated that for an annual programme of construction of 25,000 tenements, each tenement costing about Rs. 6,000, the requirements of various building materials would be as under :—

Bricks.	12½ crores.
Sand.	1,25,00,000 Cft.
Crushed stone metal and broken stone.	1,25,00,000 Cft.
Cement.	1,30,000 Tons.
Timber.	25,000 Tons of logs.
Steel.	30,000 Tons.

The Panel invited representatives of brick manufacturers and sand dealers and discussed the matter with them at two meetings of the Panel. According to them the present production of bricks which come to the Greater Bombay area was about 14½ crores of kiln-burns and 2½ crores of clamp burnt bricks. The present sand supply was about 2,00,00,000 Cft. Some of them were suppliers of crushed stone metal and they gave the Panel to understand that the supply of stone metal in increased quantities would not present any great difficulty as it meant only installation of more crushers at the quarries and so far the experience has shown that the production of crushed stone metal was keeping pace with the demand.

The panel discussed with the representatives the various aspects of brick manufacture with particular reference to the availability of brick fields with suitable clays, brick laying labour, coal for burning etc. and tried to elicit from them their difficulties and requirements and the conditions to be satisfied to assure steady supply of the increasing demand of bricks at reasonable rates. The Panel discussed similarly with the sand dealers their problems and elicited from them their views as to what was necessary to be done to procure the necessary increasing supply of sand economically.

After taking all the discussions and deliberations into consideration the panel decided to record its observations as under with reference to each building material.

BRICKS.

Prior to the last war almost all the bricks used in Bombay were being burnt at Kalyan. With the increased tempo of building construction after the war and particularly after 1947, Brick Kilns were progressively established in the Suburbs at Andheri, Jogeshwari, Kurla, Powai and Mulund. Brick suppliers also began burning bricks in clamps. Presently about half the supply of bricks comes from Kalyan and the remaining half from the suburbs. With the larger housing programme the present production will have to be increased by about nine crores of more bricks. It appears, no great difficulty will be experienced in achieving the increased production but certain, basic facilities will have to be afforded to the brick manufacturers by the Government. In the suburban areas of Greater Bombay the soil available is not by itself quite suitable for brick burning. It requires to be admixed with sand certain proportion of red and yellow earth and also tank bed or Kyari bed clay to make it suitable for burning. The Government will have to arrange to see that the brick manufacturers are allowed to borrow on payment red and yellow earth from the hilly areas. The manufacturers require black plain and corrugated iron sheets for their kilns. They also require coal for brick burning.

The Government will have to arrange for timely supply of the iron sheets and coal. They experience hardships presently in the matter of rates and taxes. It is recommended that all recoveries either on account of Royalty, Local Fund Cess or N. A. Assessment should be rationalised and compounded into one charge instead of recovering them separately.

The brick manufacture is a seasonal industry and the labour which is generally imported stays on the field for a period of six to seven months. The labour is housed in katcha huts which are demolished as soon as the monsoon approaches. The Municipal authorities are allaged to be recovering taxes for the period of full one year from the brick manufacturers for the huts. It would be fair to recover taxes from them for half-year only. The same difficulties are also faced by the Kalyan brick manufacturers. Further, bricks from Kalyan are transported to Bombay in Country Crafts through Thana creek. For some time past the brick carrying country crafts are unduly detained at the Customs outpost with the result that instead of making one trip to and fro from Kalyan to Bombay in two days it now takes double the time i.e. four days with the result that supply gets delayed and transport has become costlier resulting in higher prices of bricks. This matter may be investigated and unnecessary hardship, if any, may be removed.

Whether Government should undertake brick manufacture departmentally or it should give aid to private parties directly for ensuring the increased production and supply of bricks at reasonable rates will be discussed later in the report.

SAND

Sand supply to Bombay is mainly from the river Ulhas, the several sources along which lie between Mumbra and Bhaynder. Some sand comes from Dharamtar as well as from Virar. Sand is quarried and transported from the river bed by country crafts as well as by dredgers and barges. Presently there are five dredgers between Ghodbunder and Mumbra out of which four dredgers are in continuous operation. The total supply of sand in Bombay at present is about 2,00,00,000 cft. The sand dealers have to depend mostly on the whims and fancies of the owners who bring sand in their country crafts to Mahim Bunder etc. According to them the country craft owners cannot be relied upon for regular supply of sand at a steady rate. The demand for sand is growing. Transport by railway wagons apart from the heavy transport cost involved is undependable because of the uncertainty of availability of wagons. These conditions have placed the country craft owners in a dictating position. Moreover, there are not enough country crafts to ply in this trade. The demand for sand with the proposed increased building activity would be nearly doubled. According to the sand dealers the existing resources will not be able to cope with the demand and ways and means will have to be devised to dredge the required quantities of sand regularly from the river bed and to make reliable arrangements to transport the same. The Panel agrees with the above view of the said dealers, and considers that it would be absolutely necessary to add two more dredgers to the existing fleet and to employ diesel trucks for transporting sand to Bombay. Which Agency should acquire and employ the dredgers and the diesel trucks will be considered hereafter.

The present high prices of sand in Bombay is considered to be mainly due to the heavy Railway freight. The sand dealers stated that before the war the Railway freight for a 600 Cft. wagon was about Rs. 15 which was increased to about Rs. 35 for 600 Cft. wagon during mid-war and it is now about Rs. 105 for a 600 Cft. wagon. The Railway freight has thus increased seven times which accounts for the increased price of sand. The Panel does not know how far it will be possible to persuade the Railways to reduce the Railway freight but if cost of sand has to be cheapened efforts will have to be made in obtaining a sizable reduction in the Railway freight and in a steady daily supply of wagons required.

CRUSHED STONE METAL & BROKEN STONE

The Panel does not anticipate much difficulty in the supply of crushing stone metal as private parties would come forward to

instal crushers according to the demand of the material in the market if they are satisfied that such demand is steady. There are numerous hills and quarry sites round about Bombay and installation of crushers to exploit them should not be difficult.

CEMENT

With the proposed increased building construction the requirement of cement in addition to the present consumption in Bombay will be about 1,00,000 tons per year. The cement supply position is becoming easier from year to year due to increasing production of cement, and the Panel considers that it will not be difficult to obtain the additional 1,00,000 tons of cement per year as required.

STEEL

The supply position of steel is presently very precarious and this material is in extremely short supply. The buildings in Bombay have necessarily to be multi-storyed structures and the use of steel cannot therefore be avoided. For implementing the proposed increased building construction annually 22,000 tons of additional steel would be required. The existing difficult position is expected to last till the three plants under construction in the country go into operation by the end of 1960 on thereabout. It appears therefore impossible to launch on any big scale building construction immediately. But considering the fact that supply of steel from 1961 onwards would ease, the intervening period of about two years would be useful for planning, gearing up all agencies and in getting ready for commencing construction on a large scale thereafter.

TIMBER

Teak timber for building purposes is already in short supply in the country. Our forests yield a very small percentage of building teak but they have vast resources of inferior and secondary species of timber. In future building construction on a large scale, therefore, we shall have to use hard and soft wood timbers after treating and seasoning them. This matter has been under the active consideration of the State Government and the Chief Conservator of Forests has proposed installing treatment and seasoning plants at four places in this State at Waghai, Ghodbunder, Paratwada and Balarshaw. The Panel would like to stress here the great urgency of this matter and the necessity of installing the seasoning plants most expeditiously. Unless the seasoning plants are installed and treated and seasoned hard and soft wood timber is made available building construction on a large scale at reasonable cost would not be possible.

Just prior to the last war and particularly in the post-war period the provision of housing accommodation presented a very difficult problem, almost throughout the world. It has been realized

that the housing problem owes its existence to the disparity between supply and demand. Various factors operated in retarding the growth of housing accommodation and in accentuating the situation. The Rent Control legislation for example seemed to aggravate the economic difficulty which private enterprise experienced in obtaining a profitable return on money invested in low cost housing. High interest rates on building loans, steep rise in land prices and increased building costs all combined to place further obstacles in the way of supplying the growing need of cheap dwellings. The net result has been that it has been found impossible to provide sufficient or satisfactory accommodation for the low income groups by methods of unassisted private supply. It has been accepted throughout the world that housing for the low income groups will have to be provided at public expense and at heavily subsidised rents. The cost of housing therefore is a matter of primary importance to the State.

In countries where housing has been accepted as a Public Service, the housing policies have been directed towards rationalization in three respects, first in Building Finance, secondly in the land policy and thirdly in the matter of technical methods, materials and labour. The study of low cost housing elsewhere emphasises the importance of proper planning or rather preplanning after setting up a target for a period of years. This enables effective use being made of all available resources both men and material.

It is possible to reduce building costs by careful planning. If the programme is spread over a period of years, targets are fixed, and the executive is given a free hand to implement the programme without interference from the administration it should be possible for the department to supply essential building materials cheaply by placing contracts with brick kilns for a period of three to five years in advance and similar methods may be employed for procuring other building materials such as sand, crushed stone, etc. and building components such as doors and windows, all of which can be supplied to the contractor whose tender would then mostly be for labour only. Transport can be similarly handled.

Taking all factors into consideration and keeping in view that has been stated above this Panel makes the following recommendations with regard to the essential building materials for procuring them in sufficient quantities and proper quality and at reasonable costs:—

Bricks.

The difficulties met with by brick manufacturers in Bombay mainly are:—

- (1). Difficulty in obtaining suitable land for taking out clay for manufacturing bricks.

(2) Shortage and inferior quality of fuel.

(3) Shortage of transport.

With regard to (1). Government should expeditiously make necessary land available to the brick manufacturers on payment by them of reasonable cost either from Government waste land or by acquiring suitable private land. The brick manufacturers may be given the facility of paying such land cost in suitable instalments.

With regard to (2) firm arrangements should be made to supply coal of the requisite quality for brick manufacture. This can be done by making Railway wagons available to them as and when required.

With regard to (3) facilities should be afforded to the country craft owners to make a quick trip to and fro without unnecessary detention. This should be arranged in consultation with the customs authorities.

The Panel further recommends that in order to improve the quality of bricks and to bring about gradual standardization in brick manufacture; Government should undertake to instal a suitable plant and work it for moulding bricks, mechanically and for mechanizing the other processes also. If Government puts up such a plant and works it successfully brick manufacturers are bound to emulate and follow the Government example. By mechanizing the process of bricks manufacture in big cities like Bombay, Calcutta, Delhi, Kanpur, etc, quality of bricks would be improved and standardized, dependence on manual labour will be minimised and prices will be stabilized.

Sand.

It would be necessary to augment sand production to achieve double the present supply. This can be done only by employing dredgers and barges and it is recommended that to begin with two more dredgers may be brought into operation between Mumbra and Ghodbunder. If sand dredging is left entirely in the hands of private trade Government will have little or no control in assuring steady supply at reasonable price. The Panel is hence of the opinion that Government may buy the two dredgers in partnership with experienced private parties in the sand trade. The responsibility of working the dredgers efficiently and economically should be that of the private parties. The terms of partnership may be discussed and settled by Government.

Transport of sand from Ghodbunder, etc. will have to be handled by diesel trucks. It may be left to private operators to put such trucks on the road.

Timber.

Utmost use of soft and hard woods available in plenty in our forests should be made in building construction. It can be done

only if such timber is supplied by the Forest Department after requisite treatment and seasoning.

Teak timber used for building purposes is already in very short supply. Its cost being high it has raised the building costs. It is imperative therefore to install and operate seasoning plants at several suitable places in the State and to arrange as early as possible to supply treated and seasoned timbers for building construction which apart from relieving the existing undue pressure on teak wood will also help in reducing building costs. The Panel strongly recommends that Government should take most expeditious steps to install treatment and seasoning plants at suitable places in the State.

General.

The panel would like to impress upon the Government the fact that for making effective use of all available resources in men and materials the programme of construction should be preplanned and approved at least three years in advance.

The targets fixed for each year in the programme should be implemented as per the schedule and the Executive Department should be organised and geared up accordingly in advance.

PROGRESS THROUGH PREFABRICATION

by

SHRI MINCO J. DUBASH

THE PROBLEM

According to the figures furnished by the Housing & Housing Finance Panel appointed by the Study Group of Greater Bombay, we face a deficit of 3 lakhs of tenements. The Panel estimates that to wipe out this deficit it would take some 10 to 12 years during which time a further deficit of 3.25 lakhs of tenements is likely to accrue. The report goes on to suggest ways and means to construct the present requirement of 3 lakhs but makes no mention as to how it intends to tackle the problem in 1970. Thus it is obvious that if we aim to complete only 3 lakhs of tenements within the next 10 to 12 years, we would be back where we started and with a bigger deficit than ever before. As such the problem has been underestimated by over 50% and if we are not to lag behind in the race against population we must aim at 6.25 lakhs of tenements by 1970 i.e. over 50,000 tenements per year. It must be realised that this is a race between the production of tenements and the production of human beings and just as in a race it is not the magnitude of the distance to be covered that matters but the rate or speed at which it is covered that counts; so also the problem of Housing is not one of magnitude but of speed of construction. The solution as such lies not in merely building more tenements and creating less people but in increasing the rate of tenement production per annum to as high as 50,000; and reducing the rate of increase in population. The latter is a subject which falls outside the sphere of this seminar, but merits serious consideration on its own.

The above figure of 50,000 tenements per year is double the figure given by the above-mentioned Panel and as such every recommendation of this Panel, financial and otherwise, will also have to be doubled. This may be possible but what is not possible is that if we stick to our present day methods of construction, we will never be able to increase our rate of tenement production. Our technique

of in-situ construction is too slow and must be discarded and a speedier technique substituted in its place.

So let us review our methods of construction. Today we build wetly. We use a considerable quantity of water in our works and wait for nature to dry up this moisture content. Due to this wet process, we have to resort to temporary centering and scaffolding which takes time to erect and dismantle. We resort to heavier construction. Brick originally a load bearing material is used nowadays as an infilling material to fill up the panels of R.C.C. frame structure. The manufacture of brick is itself a slow process. It being a heavy and a small unit, it takes time to transport and hoist it up to its required place. Moreover, to build a brick wall we require a wet matrix. All this slows down construction work and yet the Building Materials Panel of the above Study Group has been foolhardy enough to suggest an increased production of bricks. We build each house separately. We employ an architect and a contractor for each job, even when they are more or less of a similar character. They have to be paid on each house with the result that the cost per unit has not dwindled down. Further as the time spent is considerable, labour employed is also more and labour costs add in further increasing the total cost.

On the other hand a speedy, efficient and economic progress can be seen in the fields of science, engineering and other industries, as their progress is based on the laws of nature and on the new materials and methods of construction which make these laws possible.

In short the housing industry needs but lacks the very characteristics which spell the success of other industries, viz. speed and economy. So why not adopt the technique of these industries to suit the needs of the house or tenements and thus progress and succeed in a likewise manner.

THE SOLUTION

What is this new technique? It is one where dry construction in a factory is resorted to instead of wet in-situ construction; where light materials take precedence over heavy materials and where separate production with individual attention is replaced by mass production. In short the technique is one of mass production and prefabrication and we will have to organise the production of building components on lines similar to the production of other industrial goods like cars, radios etc.

PREFABRICATION & MASS PRODUCTION

Before we consider the various components in detail, let us first elaborate on the principle of prefabrication and mass production. Prefabrication is not a new technique, as it is present even today to

a certain extent, in the manufacture of prefabricated units like floor tiles, steel windows, bath tubs etc., and it is only an extension of this same principle to other components like wall and floor panels etc. However, for a more specific definition, one may quote Howard T. Fisher from his article "Prefabrication and what does it mean to the architect?" "It is a question of degree. To oversimplify and look a bit into the future, if you SHOVE & SNAP a product into place in the field, that is prefabricated. If you MIX, CUT, SPREAD, FIT & PATCH-that is not prefabrication. A brick, a plaster wall of course employs manufactured ingredients, but such a wall is really manufactured in the field".

Other advantages of this new technique are interchangeability of components, accuracy of dimensions, ease of erection, no corrosion nor deterioration due to dry methods and reduction of site labour. (As against this labour will be employed in factories. This, however, will be much less and will be unskilled labour as the work will be done by machines.) Lastly but not the least, reduction of cost is theoretically synonymous with and inherent in mass production. In the transitional stage due to initial cost, economy may not result; but by resorting to mass production to a greater and greater extent, the cost per unit can ultimately be brought down in the long run and that is the point to be taken. Sceptics, however, are likely to argue that for example a 9" brick wall with plaster on both sides is bound to cost considerably less per sq. ft. than any prefabricated wall-internal or external. To them it must be pointed out that such a comparison is totally wrong in as much as lightness brings in its turn a whole series of economic blessings. Material is saved, cost of transport to the site drops, charges for mechanical hoisting and manhandling are reduced. Further a reduction in the dead load will mean an omission of heavy edge beams required to support brick panels and the considerable lightening of the frame structure and its foundations thereby effecting economies which will more than offset what appears to be a prohibitive price of a prefabricated wall. Keeping the problem of Bombay in mind let us for a start suggest that internal panel walls should be of prefabricated components and that the external panel walls should continue to be erected of bricks for a certain number of years. This will not necessitate any increase of brick production nor will it affect the brick industry adversely in any marked degree.

STANDARDISATION

But the success of prefabrication does not depend on the mere application of the principle of factory production. This application must, however, be made in a judicious manner. To elucidate further, you cannot just prefabricate diverse types of house components and yet have speed and economy. To economise and speed up prefabrication, what is required is standardisation of sizes and performance.

Standardisation is justified in as much as it implies repetitive design and moreover speed and economy depend on the scale of repetition. Further the requirement of Bombay in terms of number of tenements is so large and the types of tenements required so few, that we can justly afford repetitive designs for components. The housing problem of Bombay can only be solved by carrying out large housing schemes each housing scheme to provide 500 to 1000 tenements and consisting of blocks of tenements 5 to 10 storeys high or point blocks 15 to 20 storeys high or both; consisting of an R.C.C. frame structure and prefabricated components. Some 50 to 100 such schemes per year constructed by various authorities will enable us to reach our target figure of 50,000 tenements per year. Such schemes will require a large number of like building components which could be prefabricated, en-masse, in nearby factories and assembled on site neatly, quickly and economically. The said building components fall into 4 groups.

- (1) Structural units like columns and beams. By regularising the spacing of columns and planning the tenements accordingly, a large number of columns of like dimensions will be required. This will be correspondingly reflected in the large number of beams of like dimensions; both of which could be precast and may also be prestressed.
- (2) Wall and floor units. A system of floor to ceiling high partition system could be evolved for both internal and external walls in place of brick infill panels. The external panels could be fixed from the inside of each floor thereby doing away with the need for scaffolding. As the spacing of columns in tenements is not likely to be very great, the R.C.C. slabs in present day construction could be replaced by precast R.C.C. tee-beams, thereby eliminating the costly item of shuttering.
- (3) Utility units like kitchens and bath rooms. Abroad where prefabrication techniques have advanced tremendously, compact package kitchen-bath room units are prefabricated. However, as our methods of cooking and bathing do not require any elaborate fittings, we can dispense with this item.
- (4) Mobile units like furniture.

Sceptics are likely to argue that standardisation brings with it monotony. If complete houses or buildings were to be standardised, monotony may result but by restricting standardisation to components only, a certain unity combined with diversity will be obtained, which forms the basis of any successful design. Further, monotony if at all existing could be alleviated by a proper handling of the land-

scape, by a judicious disposition of houses and by an imaginative use of colours. Also by way of contrast and also out of necessity, it becomes imperative with prefabricated systems to incorporate social and communal facilities like clinics and community centres, which should be custom built and as non-rectilinear as possible.

DIMENSIONAL CO-ORDINATION

The story of standardisation does not end here. It is not enough to have separate standards for separate items. This would be all right if the items are to be used independently but that is not the case. In the design of tenements several components are to be used in conjunction with one another and therefore it is essential that there be a link or a co-ordination between two or more standardised items. This link cannot be a material, nor can it be a method of construction but has necessarily got to be a common dimension or a module of planning which scales, plans, proportions and thus regularises the rhythm of elements in a building. For practical reasons a planning module of 3'-4" or 1 metre,) has been adopted by most of the countries as the same is conveniently related to standard bed dimensions and a reasonably sized bath room. It is also a convenient dimension for planning stairs, door and window openings. Further more components whose widths are based on this module can be handled easily. Moreover both these modules are capable of a decimal division of 10 parts viz., 4" & 1 centimetre.

These dimensions or their multiples are absolute dimensions and will not occur in the actual measurement of buildings but they form the bases from which the actual size of a component is derived. The actual size or the measured size of a component shall always be less than the planning module and/or their multiples, by an amount which must allow for both a joint and manufacturing tolerance. As such when laying down the size of a modular component (i.e. a component which fits into a planning module) two limits must be assigned, one the actual size and the other a size slightly less than the actual, which limit must be such so as to be hidden by a joint. This is known as dimensional or modular co-ordination and in addition to fixing and joining of building components, it also includes the placing of furniture, equipment and tiles. The reason why standardisation has not progressed as it ought to have, is because of the lack of this co-ordination.

Even with what little standardisation we have, there is no link to connect the various systems. Tiles have been found to fit with each other but not always with room sizes. Acoustic boards are required to be cut and wasted in order to fit around windows. This situation is likely to worsen when other building components are standardised and to prevent this it is imperative that a national body like the Indian Standards Institution should take a lead in issuing

a mandate to all manufacturers to standardise the sizes of their products so as fall within specified limits; for only such a body can make various large firms agree upon a common co-ordinating standard.

SUGGESTIONS

In order that the above proposals may bear fruit, I have to offer the following suggestions:—

(1) Government should sponsor an architectural competition for a housing scheme for 500 tenements and the same should be judged not just from the point of view of its architecture and economy but also and in fact mainly from the point of view of its detailing which should lend itself to mass production and prefabrication, and hence to the speed of its erection. The selected design should be carried out and due publicity given to the same.

(2) Send abroad to the States and the Continent, a team comprising of architects, engineers, industrialists, economists and government officials, whose job it shall be to study mass production and prefabrication techniques prevalent in these countries and report as to how the same shall be adopted to suit Indian conditions.

(3) To treat housing as a separate industry distinct from other buildings and set up semi-permanent factories in the heart of residential district to turn out building components and cater to the housing needs of the locality in its proximity. After a locality is fully developed the factories (which must themselves be of demountable parts) may be shifted to other localities.

(4) To revise the bye-laws to allow for the use of prefabricated components.

CONCLUSION:

This then is the solution. We have a long way to go, but if we are to alleviate the burden for posterity, we must admit that housing has ceased to be a problem merely of architecture. It is today as much a technical problem and the technicians and architects must harmoniously combine their efforts. Or to put it in other words, residential architecture which originally had three aspects viz. commodity, firmness and delight; has now imbibed in itself another dimension viz. speed, with the result that today a block of tenements may be functional, stable and aesthetic and yet fail to be a work of architecture if it is not built speedily.

MATERIALS AND DESIGNS

(Acquisition of Sites, Standards of Construction etc.)

by

SHRI N. K. GANDHI

Quite a large proportion of the future work in connection with the urban housing is bound to be the construction of tenements for the low income groups. All these constructions will, moreover, have to be done as Public Housing Projects, as in the absence of proper returns on investments, no private investor henceforth will undertake such housing. Utmost care and thought has, therefore, to be bestowed on these major public activities in the use of land, the choice of materials, design of individual tenement, their layouts and their integration into the general pattern of City development. If proper vision and foresight is not exercised in these matters, there is every likelihood of these new tenements, on which crores of rupees will have to be spent, degenerating into veritable slums before long.

Everybody will agree that the housing to be thus provided for the low income groups has to be as economical as possible. There, however, appears to be a general misconception that 'a low cost house' is synonymous with 'low standard house' having least accommodation, cheapest materials, lack of amenities and conveniences and crowding together of a number of families. For instance not quite a long time back, provision of electricity for Lighting purposes and independent water tap per family were considered a luxury and hence no provision was made for these amenities in these low cost tenements. This is not a correct approach to the problem. The low cost of a tenement is not to be achieved and effected by denying comforts and amenities and using sub-standard material but by exercising ingenuity, technical knowledge and proper integrated planning so as to increase convenience and comforts and at the same time effect reduction in cost by selecting proper land, by suitably designing the building and its components by making maximum and clever use of indigenous materials, inventing better and cheaper substitute materials and making them available in plenty.

In this context it would be worthwhile examining the present methods in general of executing Housing Projects especially with

reference to utilisation of land, different materials in use and the design and standards adopted. While discussing the subject under these different headings possibilities of economy, overall reduction of costs and improvements will also be indicated.

LAND

Every Public Authority in urban areas is very eager to build houses for their employees. The first difficulty is, however, the availability of suitable land in their ownership. The result has been three-fold :—(i) Whatever land is owned by each authority is being utilised for housing without considering whether it is suitable for the purpose or not and (ii) there are conflicting demands for acquisition of the same plots of land and (iii) development takes places in different patches not in a co-ordinate manner so that it becomes difficult to ensure services.

To illustrate (i) the Railways in Bombay have built up narrow strips of land close to and alongside the Railway lines converting the latter into a corridor. This development will block future possible expansions of Railway lines while little thought is given to the civic requirements of the occupants of these houses. Similarly large low-lying creek lands, away from all communications, are filled in and utilised for Housing thus creating many physical difficulties like blocking of discharges of rain water etc. and large amounts are required to be spent on development works alone.

The first and foremost task in the interest of proper planning is to carry out a detailed 'Land use Survey' of all the areas. On the basis of this survey and irrespective of the ownership of the land, future plans (development plans) must be prepared. 'Survey before plan' is the first principle of planning. In the development plan, land should be carefully chosen and earmarked for its fitting uses such as residence, industry, open spaces, communication etc. after a careful study, in which all consideration like topography, geology, communications, possibilities of extension of civic services along with the existing developments must be given due weight. The whole area should be divided into suitable Sections or neighbourhood units with an attempt to encourage development in complete neighbourhoods in a planned manner so that civic and other services would be available as soon as buildings are completed and occupied.

The basis for payment of compensation for private land to be acquired is at present a very vexed question. For acquiring land for Housing purposes, the prices are to be paid on the value of land as prevailing in 1948. This is not enough as still large amounts are involved considering huge areas that have to be acquired. Under the Town & Country Planning Act of 1947 in England, the value of

land for acquisition was fixed as 'existing use' value and not on the potential use value. Some such legislation will have to be thought of. Another difficulty at present experienced is the delay involved in getting possession of the land, as long procedural details have to be followed under the Land Acquisition Act. Urgency Clause cannot be applied if there is even the smallest hut standing on the land. This encourages obstructive tactics. The Act must be drastically amended so that the possession of land could be had in the six months of the date of notification in the gazette.

MATERIALS

We have mostly to depend upon the traditional materials for building construction. There is, however, considerable scope for economy. Costs of some Housing Projects recently carried out by the Bombay Municipal Corporation are detailed in Appendix 'A' which also shows its break-up into major components. In all these projects the design of buildings is the same R.C.C. frame structure four storeyed, traditional materials for construction, like brick walls, teak wood for doors and windows and Indian Patent Stone for pavement. The cost of the different projects differs as the sites are different and they are let out to different contractors. From this data the break up of costs among different components of the buildings works out on the average as given below:—

<i>Components</i>	<i>Percentage of Total cost</i>
1. R.C.C. framework (columns, beams, slabs, staircase etc.)	36.00
2. Panelling (in bricks)	16.50
3. Finishing (plastering and pavement)	8.00
4. Teak wood in doors and windows.	12.00
5. Sanitary work	8.50
6. Water supply	10.00
7. Electricity	4.00
8. Other Miscellaneous works (passages, pavement of compound, chulas etc.)	5.00
	<hr/> 100.00

The structural part of the building-Item Nos. 1 & 2 above—accounts for more than 50% of the cost of the structure. The materials used for this work are R.C.C. and brick work. In the multi-storeyed and multi-tenanted buildings in urban areas, it would be little use thinking in terms of doing away with the use of steel. Even if brick masonry load bearing walls are used in place of R.C.C. frame work, the staircase, the galleries and the floors will still have to be in R.C.C. Besides over openings of doors and windows R.C.C. lintels have to be provided.

Similarly it is hardly wise or economical to attempt to use lime in place of cement in modern construction. This would involve heavy transport and mortar mixing will be difficult so as to ensure standard and in combination of R.C.C. frame works difficulties may arise. Cement and steel production is already on the increase and we must look forward to getting these in adequate quantities.

There are, however, possibilities of reducing total quantities of R.C.C. work. This reduction can be effected by reducing the dead weight of buildings. All panelling work at present is being done in brick walls only—9" walls outside and 4½" walls inside. To reduce weight, it is possible to use hollow bricks for panel walls; for internal partitions we can use light weight concrete, hard boards and such other materials. For this purpose we can also work out the possibilities of turning the waste material such as husk of rice or crushed sugar cane chips. This will be an ancillary industry to a Rice Mill or a Sugar Mill thus enabling provision of employment for the whole year in the main industries. This is a question of intergrated and regional planning whereby the housing programme in urban areas can be speeded up while more industrial employment can be provided in the rural areas.

The bricks in use at present are only solid ones. They are, moreover, manufactured with human labour and are not uniform in shape, size and the burning also is not proper. We must, therefore, think of mechanising manufacture of bricks so as to have them of standard quality and colour. Some vitreous types of bricks can be manufactured and used for external walls so as to save external plastering. Manufacture of hollow bricks will be possible only with mechanical method of manufacture.

Besides reducing dead weight, the use of hollow bricks will provide insulation, and with the use of reinforcement they can be used in floors having small spans. Early start must, therefore, be made for the mechanical manufacture of hollow bricks as well as for the production of panel walls with waste materials in the rural areas after undertaking an exhaustive research. As already observed this will effect a large amount of saving in the use of cement and steel and ensure economy.

The cost of finishing accounts for 8 to 9% of the total cost. Proper care has to be used in selecting materials for finishing as this is the part of construction which directly affects the day-to-day use. For walls both inside and outside plastering has to be resorted to. This is necessary in the Bombay climate as otherwise the bricks exposed to sun and rain will not give proper protection against the monsoon. Besides bricks are irregular in shape and unless plastered, they do not present a good surface. As stated above, if mechanised bricks of vitreous types are manufactured, plastering on the external

face can be saved. For floors, Indian Patent Stone is being usually provided for pavement. From experience it has been found that this type of pavement does not give satisfactory service owing to its rough use in kitchens and also in the living room where furniture is moved from time to time. Some other mode of pavement like shahabad or kotah stone or cement tiles will therefore have to be considered. At present Indian Patent Stone costs about Rs. 40 per 100 S.ft. as against the other stone pavement at about 90-100 per 100 S.ft. However, we cannot take into consideration only the initial cost. Maintenance cost and suitability will also have to be taken into account.

Procurement in adequate quantities of constituents of concrete and mortar viz., stone metal and sand is a matter of spotting out the sources, employment of adequate labour and equipment and of transport.

Doors and windows account for 12 to 15% of the total cost. The major difficulty at present met with is in the procurement of properly seasoned wood for frames and shutters of doors and windows. Panelled shutters are costlier and therefore usually only dhapa shutters are provided for doors which display seasonal cracks. The manufacture of frames and shutters of doors and windows is being done at the individual sites of construction. It would be cheaper if standard doors and window frames are manufactured ready for use on all construction works. In the past some low cost shutters were manufactured by the Sunderdas Saw Mill. They were using soft wood (silver oak) for the shutters. As they were machine made, their behaviour was generally good. However, this manufacture has now been stopped by the firm. The Hindustan Housing Factory at Delhi is, it is understood, also manufacturing some such standard types of doors and windows; a firm at Bhavnagar are manufacturing some shutters made out of synthetic wood and they are being used by the Housing Board. They appear to be rather heavy and their behaviour is still to be studied. There are not enough factories manufacturing such shutters though there is quite a good scope for such factories all over the Country. They need not be in urban areas. The best idea would be to have them in forest areas in the south at Dandeli etc. where seasoned wood is available. Large scale manufacturing of windows and doors will be a fitting ancillary industry to the seasoning plant for wood wherever established. It would certainly cheapen the cost and at the same time good windows and doors will be available if standard ready made shutters for doors and windows are manufactured on a big scale.

In the matter of fixtures and fastenings of doors and windows, there are many difficulties in obtaining materials of proper quality. Iron fixtures and fittings are provided which are usually oxidised but

oxidization wears off within a month or so and the iron gets rusted. More factories for manufacturing standard types of fittings will have to be provided.

As regards sanitary and water supply works (fittings) these are mostly of indigenous manufacture and they are available though with some difficulty. However, the flushing tanks in the W.Cs. and the push taps provided are frequently giving much trouble. Springs provided in the push taps are rusted and give way within no time, which results in leakage of push taps. In case of flushing tanks also the workmanship required to be improved so as to make it work with more reliability.

DESIGNS

A conception of the proper design of a house can be got only when the requirements are studied from the dwellers' point of view. In this connection we have to give detailed consideration for each tenement in the matters of (1) living space to be provided, (2) privacy and convenience and (3) through ventilation and (4) Architectural effect.

About two decades ago the space provided per family was only one multi-purpose room having 100 S.ft. area. This was considered enough for cooking, living, sleeping and all other purposes. Recently a standard of 180 Sft. has been adopted in which 60 Sft. is for kitchen and 120 Sft. for a living room. According to the English standard a house is designed with as many bed rooms as there are members in the family. In Russia at present they are providing 100 Sft. of space per person in the family. Our family units are larger, still we are constructing a majority of our housing units of a single bed room type. The Housing Panel of the Study Group of Greater Bombay suggested that in all future development in Bombay, the minimum accommodation to be provided should be two rooms and a kitchen. The Group, however, suggested that during the transitional period, it would suffice if only single rooms are provided but the tenements should be so designed as to be capable of having two rooms and a kitchen per family in future. This is only a palliative and a pious hope. In Bombay we have to provide tenements at the annual rate of 25,000 units upto 1970. If single room tenements are provided, we will be adding to and perpetuating the sub-standard housing that is already existing in the City. The needs of the family are steadily growing; every family has got furniture, a chair, a table and a cupboard and more and more furniture like sofa sets are available. 'The standards of today are the slums of tomorrow' and it would hardly be wise to construct huge numbers of tenements of the type which are considered sub-standard even to-day.

In our designs very little consideration is given to privacy. 'An Englishman looks upon his house as a castle'; there is very little private life in a tenement of a chawl's type. The common sanitary accommodation is always the dirtiest part of such buildings. It is very difficult to maintain and there are various complaints. Provision for closed bathrooms in chawls has only recently been included. It is a matter of gratification that under the Government of India Slum Clearance Scheme, the minimum standard of a tenement has been laid down as a self-contained tenement having a separate W. C. and a bathroom. It is, however, unfortunate that this has not been accepted as a rule in the housing projects undertaken even by the Government and the Railways. For Class IV Staff common sanitary accommodation is still considered adequate. In the interest of ensuring privacy, it is also necessary to stagger the buildings.

Another important aspect of the design is the necessity of having through ventilation to all the tenements. This can be achieved by proper orientation of buildings and their correct layouts. Unfortunately no proper consideration is given to this aspect of the design. For through ventilation it is necessary that window/door openings should be available in the opposite directions, that is, east-west or north-south. Instead the plot sizes are such that rooms belonging to different occupants are placed against each other so as to prevent through ventilation. In such designs two directions are available at right angles and not directly opposite.

Deeper thought will also have to be given to the general architecture of the area where housing development is taking place. The first thing to ensure is to avoid monotony. At present in all layouts (Improvement Trust, Marine Drive etc.) uniform plot sizes are provided on both sides of a road so that the resulting development is monotonous with buildings of uniform height divided by open space. Instead, buildings of different heights should be grouped together so as to present an interesting composition, they should be staggered and all open spaces (front, rear and sides) should be slightly varied in a planned manner so as to ensure variety.

All the above consideration should determine the length, breadth and height of residential buildings. Longer lengths for buildings means crowding together of a number of families with unnecessary long corridors affecting privacy of individuals. Continuous lengths of such buildings block free circulation of air all along the street. Staggering of buildings will ensure better circulation of air. As regards widths, the greater the width of the plot, more the difficulty of designing smaller tenements with proper through ventilation. This indicates that the maximum width of the building should be two-room space.

In case of heights of buildings, it is the general conception that in urban areas more height must be allowed so that more families can be accommodated. It has, however, to be pointed out that for proper

planning, the number of families per acre of an area is to be laid down; the families so determined may be provided either in tall buildings having large open spaces all around or in a number of buildings with smaller open spaces distributed round-about. As pointed out above, it is essential to have buildings of different heights grouped together so as to ensure variety and architectural composition. The height of a building in the urban area at present must be determined by the availability of mechanical lifts etc. and their reliable working.

Appendix 'B' shows the design of some of the different types of low income group housing constructed by the Bombay Municipal Corporation during the last 3-4 years. Originally only chawl type construction in pretty long buildings was adopted. Subsequently a type was designed having sanitary accommodation common to two families only. In this design the length of the corridor is much reduced. Opinion is veering round to the conception of two room self contained tenements in smaller units (having four on each floor) and at present these are mostly under construction. It will be noted that for ensuring privacy in some of these buildings, the common corridors are depressed at Chhaja level.

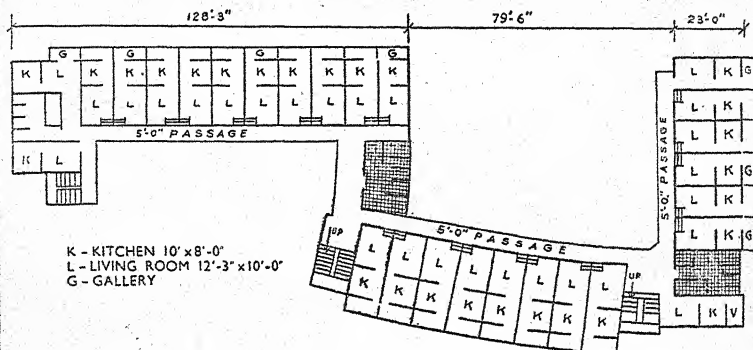
As already emphasised the housing question in urban areas has to be dealt with in a larger perspective and bolder manner. As matters stand at present, we are overwhelmed by the enormity of the problem by the rising prices of land and material and the large number of tenements that have to be constructed involving crores of rupees for a number of years. The natural reaction is to reduce standards and use low quality material to keep down overall cost. To adopt this sort of approach is to accept defeat. The proper approach to the problem would be to ensure production and supply of adequate material, find out suitable substitutes, standardise some component parts and make them available ready-made. The emphasis should be on finding out the sources and then ensuring production. This is a matter of regional planning. More production means more employment with more money in circulation and better standard of living. Ultimately this will result in normalising the cost of Housing and at the same time increasing its standard. Our aim must be to give better housing accommodation with all modern amenities but at cheaper cost.

APPENDIX A

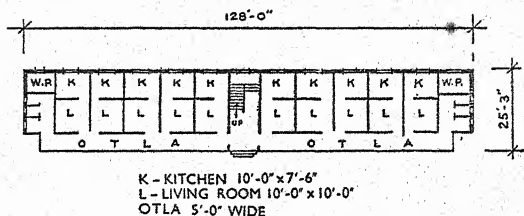
BREAK UP OF COST OF TENEMENTS

Sr. No.	Name of work	Total R.C.C. frame Cost work (columns, beams & slabs)		Panelling Finishing Brick (Plaster & masonry. & pavement)		Teakwood Drainage (doors & windows) including W.Cs.		Water supply including pumping.		Electricity Misc.	
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1.	112 tenements at Haines Road.	6,35,170	39.04	15.53	8.13	13.13	6.11	10.35	3.96	3.75	
2.	112 Tenements at Azad Nagar.	6,25,967	36.52	16.72	8.24	11.35	7.39	10.32	3.80	5.66	
3.	48 tenements at Body Guard Lines.	2,64,752	39.60	10.14	9.32	22.05	7.05	5.08	3.53	3.22	
4.	64 tenements at Maratha Hospital.	3,06,660	39.30	15.98	8.93	14.61	7.08	4.83	4.19	5.02	
5.	76 tenements at Kamathipura	5,06,900	39.07	12.80	6.30	14.60	5.9	7.9	3.9	8.90	

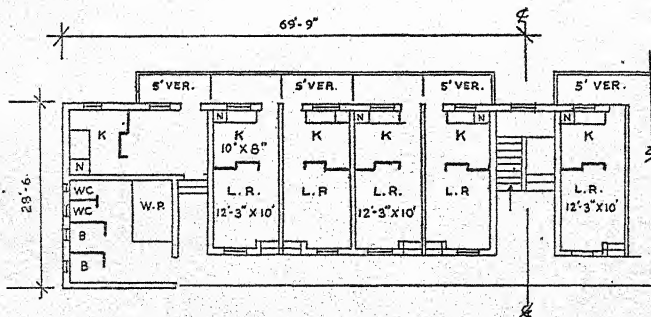
Notes : (i) In case of item No. 3 rates for brickwork are low and those of the Teakwood work are correspondingly high.
(ii) Water supply costs in 3 & 4 are low as no pumping arrangement is provided.



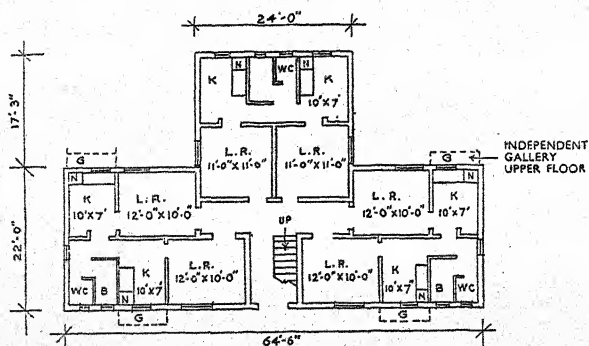
TENEMENTS AT PALTON ROAD
SHOPS ON GROUND FLOOR & CHAWL TYPE TENEMENTS
ON UPPER FLOOR [1955-56]
ACCESS VARANDAH DEPRESSED AT CHAJJA LEVEL



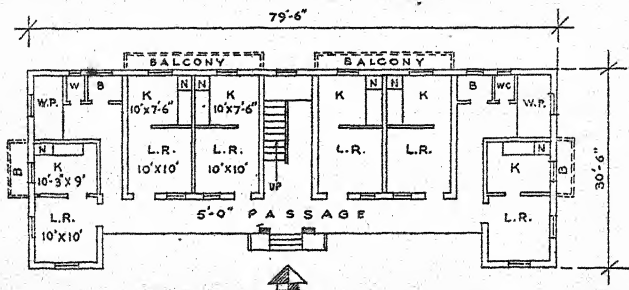
TENEMENTS FOR CONSERVANCY STAFF
AT MAHALAXMI [1954-57]
CHAWL TYPE CONSISTING 10 TENEMENTS ON EACH FLOOR



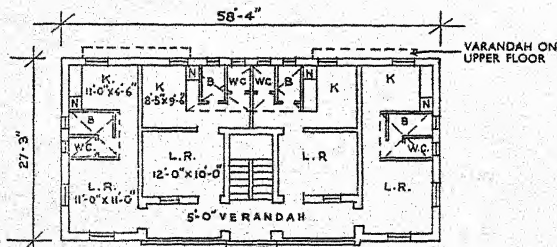
TENEMENTS AT SEWRI WADALA [1956-57]
CHAWL TYPE 40 TENEMENTS
ACCESS VARANDAH DEPRESSED AT CHAJJA LEVEL



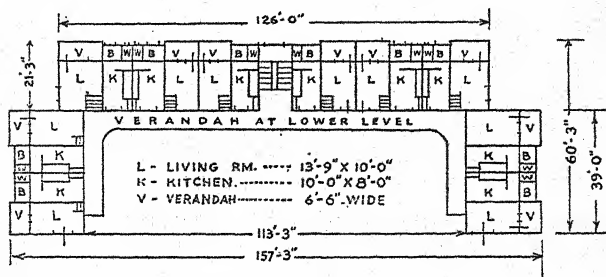
TENEMENTS AT ELEPHINSTONE ROAD, BAPTY ROAD, ETC. [1957-58]
SANITARY ACCOMMODATION SHARED BETWEEN TWO TENEMENTS
A COMPACT BUILDING BUT OBSTRUCTING THROUGH VENTILATION



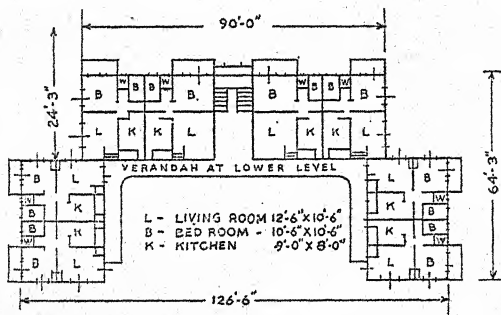
TENEMENTS AT ANDHERI [1958-59]
A COMPACT BUILDING FOR A CHAWL



TWO ROOM SELF CONTAINED TENEMENTS
4 ON EACH FLOOR [SEWRI, WADALA, HAINES ROAD &
BODY GUARD LINE 1958-59]
COMPACT BUILDING ENSURING THROUGH VENTILATION



2 ROOM FLATS AT GILDER LANE 1957
 FLATS WITH COMMON ACCESS



2 ROOM FLATS AT GILDER LANE 1957
 FLATS WITH COMMON ACCESS

A STUDY INTO THE HOUSING PROBLEM OF GREATER BOMBAY

by

SHRI M. P. MORE

Preliminary

Before any attempt is made to offer suggestions as to the solution of the ever growing Housing problem, a considerable reference has to be made to the statistical information on the matters relevant to the subject and much reliance has to be placed on the trends indicated therein and the experience of the previous years. In the absence of such information, a tendency to contribute vague and unsupported formulations can hardly be checked. Fortunately, the Study Group for Greater Bombay has done substantial base work in this connection, confined to the limits of Greater Bombay and has supplied definite statistical data on a number of points. Out of respect for such definite information this study is restricted to the limits of Greater Bombay only. A major reliance is placed in the following submissions on the report of the Study Group and the reports of the various Panels appointed by it. In addition, a paper on Housing Problem in India, prepared by the Ministry of Works, Housing and Supply made it possible to prepare certain estimates of working costs. These estimates on the basis of the above two works are annexed at the end.

While on the subject, the need for organising properly conducted surveys on the various relevant issues will be felt throughout the discussions of this growing problem. It may be suggested here that in addition to the other surveys that may be planned, the following surveys may also be undertaken, in view of the possible utility of the information thus collected in future, as well as the present.

A survey of the housing needs of commercial and other employees and industrial workers.

A survey of the construction-cost structure of Housing Co-operative and that of the Bombay Housing Board.

A survey of un-utilised vertical building space.

A survey of the repairs and maintenance necessary to existing structures and buildings.

A survey of the conditions of labour in the Building Industry.

Assessment of the Problem

The population of Greater Bombay, including the suburbs extending upto Mulund on the east side and beyond Borivili on the west side, was 30 lacs in 1951 and increased to 43.17 lacs in the middle of 1958. The Planning Commission had estimated an increase in the total urban population at the rate 33% by 1961 over that of 1951. Compared with this, the increase in the population of Greater Bombay is an exceptional one and the reasons for the same must be investigated. If these had been made available, it would have enabled us to arrive at a more approximate estimate of the population in the year 1970. This population of 30 lacs, includes about 10½ lacs workers and employees. At the same time it will be interesting to note that about 4.16 lacs live in the 144 slums in the City, as per the information compiled by the Municipality.

The Study Group has estimated the population in the year 1970 at around 60 lacs. It would have been better, if the Study Group had also estimated the population, actual housing provided and the housing shortage, in periods of five years and in keeping with the periods of the five year plans of the Country. The housing shortage, based on the full implementation of the programme of 25,000 houses per year, as proposed by the study group is expressed in the Statement 'A' annexed at the end.

Presuming that a tenement accommodates five persons and the persons so accommodated in 1951 were six per tenement, the housing shortage works out to be 2.89 lacs tenements in 1958. If subsequently accommodation is provided as per the programme proposed by the study group, the housing shortage will be 3.10 lacs in 1951 and 3.25 lacs in 1970. In addition, it is estimated that about 1.05 lacs of tenements will need replacement, if depreciation is to be calculated at 1% per annum and replacement is to be provided at the rate of 11% per 10 years. Therefore, on this basis, during the next 12 years 7.32 lacs of tenements will have to be constructed to solve the problem satisfactorily; and roughly speaking, it will be necessary to chalk out an yearly programme of building 60,000 tenements per year.

In keeping with the estimates supplied by the Ministry of Works, Housing and Supply, the total cost of construction, including the cost of construction of the buildings with internal services, the cost of development of land with external services and the cost of arrangement towards bulk water supply and sewage disposal of these 60,000 tenements will be approximately rupees 57 crores. The construction of buildings will cost Rs. 43.80 crores, the cost of development of land will cost Rs. 11.60 crores and cost of the provision for water supply and sewage disposal will be Rs. 1.50 crores. Details of these costs are shown in the Statement 'B' attached at the end.

Constructing Agencies

Naturally enough, attempting to construct 60,000 tenements per year will require large-scale housing activity in an organised manner. In consequence this raises the issue of constructing agencies, the resources at their command and the programme that they could undertake.

At present, the following agencies undertake house construction activity of various types.

1. The employers, including Government and semi-Government institutions.
2. The Co-operative Societies.
3. The Bombay Housing Board.
4. The Municipal Authorities.
5. The Private Investors.

The Employers

It is hardly necessary to state that an appreciable portion of the increase in the population of Greater Bombay is due to the spurt in the industrial activity in the City and the employment opportunities this spurt provides. There are about $10\frac{1}{2}$ lacs of industrial workers and commercial employees including those employed in Government service. Out of these $4\frac{1}{2}$ lacs are employed in industrial concerns, $3\frac{1}{2}$ lacs in Commercial Establishments, more than $1\frac{1}{2}$ lacs in Central Government services and in the Statutory Corporations, about $\frac{1}{2}$ a lac in the State Government employ and about 68,600 in the services of the Municipality. The housing needs of this section of the population is a major problem itself. Taking into account the period of the next twelve years and assuming that during this period every third employee will be in the need of accommodation, about $3\frac{1}{2}$ lacs of tenements will have to be provided for these employees in the coming twelve years. In other words about 30,000 tenements will have to be built every year if this demand is to be fully met. In our opinion, the solution of this problem of the employees must be entirely the responsibility of the employing sections, at least in a Socialistic Pattern of Society. If the employers take seriously to this activity the problem is not beyond their means. Various other reasons could be convincingly advanced supporting the stand taken above.

The housing needs of the employees is the result of the increased tempo of activity and employers are slowly realising that a contented labour force guarantees better and satisfactory production. On the other hand since health and housing are interconnected and influence workers' efficiency ; adverse housing conditions and overcrowding have a cramped effect upon the mental and physical condition of the workers and their families, besides giving rise to sickness and epidemics

due to insanitary living conditions. As for the question of the necessary financial resources, it does not arise in the case of the employers, their only complaint being that the building activity does not give a fair and adequate return. But they must realise that the total likely investment in this activity represents but a fraction of their overall investment giving more than a fair return. It is not as if the employers are left to enter into this unremunerative side activity without Governmental aid. Recently Government has increased the quantum of loan admissible to employers from 37½% to 50% and has also promised assistance in the matter of securing of suitable sites for building. Now the employers must accept their responsibility, more so since if necessary they can call upon the co-operative spirit of their employees to their assistance. In this connection, the Government and semi-Government employing authorities must give a lead to other employers. All organisations having a large number of employees should gradually provide housing to all their employees. The rest of the employers can entrust the necessary funds and the work of construction of housing for their employees to Government or the Bombay Housing Board. Before claiming any guarantees against inadequate return, the employers must embark upon this activity in a spirit of co-operation and for the Nation. In the alternative as many have suggested, the only course left open to the Government will be to enforce such a programme of housing by compulsory legislation.

Out of these 30,000 tenements per year, the private employers will have to construct 21,000 and the other employing authorities will have to build about 9,000 tenements. Since 3 to 4% of the employees belong to the upper middle class and the higher salaried staff, who can afford to pay higher rents, about that much proportion of the tenements will have to be constructed for this section of the employees.

Co-operative Societies

In the post independence period, there is a welcome spurt in the activity of the Housing Co-operatives. As against 135 societies with a membership of 8597 in the year 1945-46, there were 984 societies with a membership of 52,421 in 1953-54 in the Bombay State. Though the figure relates to the entire State, the Housing activity is more concentrated in cities like Bombay and Ahmadabad and the corresponding figures for Greater Bombay must also be impressive. The latest figures will reveal a further advance. This spurt is largely due to the realisation by a still small section of middle class population that their housing needs could not be entirely be satisfied by the private investors, with the disappearance of the capital for the low rented constructions. This feeling was further helped by the assistance given by the Assistant Registrar of Co-operative Societies and the financial assistance given by the Bombay Co-operative Housing Finance Society. A reference has already been made that a survey of

the housing needs of workers and employees should be made through their employers. As most of the factories and establishments have Co-operative credit societies in some form or other, the survey should reveal that a number of employees will come forward if some relief to their housing problem is guaranteed. The employers can again contribute to the effort of their employees.

However, due to the difficulties of finding adequate and timely supply of finance, the scarcity of suitable building sites and the inadequate and untimely supply of building materials such as iron and steel, and the time kept in suspense before they are able to get the premises, many are still hesitant to come immediately forward. Malpractices by some unscrupulous businessmen have contributed to this hesitation, and it has become necessary that the Assistant Registrar of Co-operative Societies should plan schemes in consultation with the various departments and do a lot of field and contact work to infuse the confidence in the housing activity by co-operation. It is gratifying to note that Government has already agreed to enhance the loan admissible to such societies from 50 to 65%. The Bombay Housing Board has also made available to housing societies developed land at a reasonable price. In the same spirit if the time lost in various formalities could be reduced many of the grievances put forward by the societies will be removed. In this connection, an enquiry into the plots in the hands of societies on which construction has not been begun should reveal the reasons. A survey of the cost structures if made available will also be interesting from the point of view of comparison of the cost structure of the Housing Board.

In light of this it seems that the target fixed by the Study Group, for societies and individuals, of building 2,000 tenements per year seems to be an underestimation and the housing societies should be able to build about 5,000 tenements per year.

Bombay Housing Board

The Bombay Housing Board which at present constructs about 4,000 tenements per year, for the Greater Bombay area has a programme of building 6,000 tenements every year. Considering the machinery available to the Bombay Housing Board, in the matter of Governmental aid, finance it is able to secure and the amounts lying unutilised the programme as planned by the Bombay Housing Board is not at all realistic. To assess at the real nature of the problem of those seeking accommodation from the Board, the Board should have maintained records of the various demands received by it. An areawise estimate of persons seeking such accommodation should help the Board in planning a more realistic programme. As suggested in the previous section, a comparative cost structure should also enable it to enquire into the high cost of construction of Housing Board tenements and the consequent high rents, which are on an average 20%

higher than other constructions. The Housing Board should also enquire into the possibility of speeding up its construction programme, so that more tenements could be constructed every year. This in return will support its claim on adequate provisions of finance from the Central and State Government. In addition, if the Board inspecting staff discharges its duties more in keeping with the requirement of the solution of the problems, many of the complaints made by the Housing Board tenants and the consequent hesitation to approach the Board by those needing accommodation could be avoided. This is in matter of inspection of buildings while under construction, which should also ensure the full use of the building materials placed at the disposal of the contractors, the avoidance of wastes and malpractices.

The Housing Board is trying to approximate its activities to the needs of the people. And its recent decision to provide accommodation on a rental basis is welcome feature of this change. The Housing Board should also partially undertake the work of clearance of slums in the City. The Board has also undertaken the work of development of sites for those needing such plots at a reasonable price. In view of this the suggestion made above that the Board should keep areawise requirements of those in need of housing accommodation should help in planning the development of such sites.

As a sequel to the observations made above, it should not be impossible for the Board to plan the construction, of about 10,000 tenements under the industrial housing scheme, 3,000 under the rental basis and 2,000 under other schemes. It should also plan the construction of 2,000 tenements per year for the clearance of slums. In addition to this, it will have to undertake construction for the employers, if it is asked to do so.

Municipal Authorities

The Housing problem of Greater Bombay, should also loom large before the Municipal authorities, since they are more concerned in providing the needs of sanitation of such a large mass of humanity and in keeping the appearance of the City decent and enticing in spite of its evergrowing industrial activity. The Municipal authorities should be more concerned in the prevention of slums and the clearance of sums. To solve this they should have more ambitious plans than the rest of the constructing agencies and in the same context, they should provide accommodation to a large number of their employees in the coming twelve years and that too should be as near their working places as possible. This in return will help solve a number of allied problems. The Municipal Authorities can do more precious work in this direction than the rest of the employers. The inspecting staff of the Municipality will also contribute to the solution of the problem, by discharging their duties more rigorously, not

only in the matter of new constructions, but also as regards previous constructions in need of repairs and maintenance. It is needless to point out that since the planning of other details entirely depends on the work of arrangement for water supply and sewage disposal and the construction of various auxiliary services, the Municipal authorities should put in the maximum speed and thus facilitate other work.

In this light, the Municipality should plan the construction of about 4,000 tenements for their employees and about 2,000 tenements for the clearance of slums.

As far as the work of this construction agency is concerned, though it is expected to contribute to the solution of the problem, it is also important from the point of view of giving concessions to the private capital for the work of building construction. The concessions allowed to these and those of employing sections who will be building for their employees a differentiation must be made. The calculations of an adequate return and tax reliefs will not weigh very heavily in their respect. It will undertake the work of construction irrespective of the aid promised by the Government and consequently find its own channels of raising the necessary finance.

The programme planned for the various constructing agencies in the above lines, is reproduced in the Statement 'C' attached at the end, along with the cost of construction and the arrangements for the supply of various auxiliary services. If this programme is accepted, it will naturally raise the question of raising the necessary finance for its implementation the availability of developed sites, building materials and labour. It is gratifying to note that the Central Government has revised recently the loan components of the costs of construction, to the employers, the workers' co-operatives and for the low income group. This should provide added incentive to building activity.

Financial Resources

The resources required for implementation of a programme of housing costing to the tune of 57 crores every year, i.e., about 700 crores in the next 12 years have largely to come from public borrowings and investment from the private sector. For this those contributing to these resources must be made to realise the urgency of the solution of the problem. In this direction economy, efficiency and speed of the constructing agencies will infuse the necessary confidence. The spirit of co-operation amongst those needing housing accommodation and those willing to contribute to the National uplift must be channelled by giving them participation in the planning of programmes and representation on the bodies implementing the programme.

Since demands must be framed in keeping with the needs, the available resources must be utilised to the fullest extent. Attention

is invited in this connection to the complaint made in the Bombay Assembly to the effect that the capital and reserve resources available to the Bombay Housing Board are allowed to lie idle. Similarly, the arrears recoverable are also mounting.

In view of the insistence on low cost housing, the cost structures of various constructing agencies must be rigorously surveyed and compared. Whereas the cost of construction of agencies other than the Housing Board have worked out to a maximum of Rs. 1.50 per cubic foot, the cost of the tenements of the Board works out to more than Rs. 2.25 per cubic foot. Consequently, the rent structures are also comparatively higher. In the construction suitable checks should be provided to see the full utilisation of the materials like cement and steel provided. This will help in ensuring longer life for the tenements constructed and preventing blackmarketing of materials. It is estimated that the return of the contractors work out to from 25% to 30% of the cost of construction, the possibility of avoiding contractors should also be investigated.

A major portion of the total cost is the cost of land. If the Government is in a position to supply land at a reasonable price, it will help the construction agencies. In addition, a strict check must be maintained in land allowed to lie idle for speculative purposes, on the land values and on the transfers of land.

Since the transport services catering to the population of the Greater Bombay derive profits from the industrial and other activity in the City, a portion of these should be required to be diverted specially for the purpose of solving the finance problem of building construction.

It is expected that the employers will come forward to contribute their own part of the financial requirements of the construction. The resources in the form of special securities liability lying with the employers should be fully utilised for public purposes. Recoveries should be strictly made and henceforth no exemptions even in the matter of utilisation must be made. In addition the small savings drive should be intensified through the agency of the employers. Model schemes for housing employees should be prepared and recommended to employers and the credit societies in their organisations should be asked to organise the savings of the employees.

Added incentives should be provided by the Bombay Co-operative Housing Finance Society for earlier settlement of loans. This will free capital for reinvestment. To avoid exploitation of the situation by private builders, all such builders should be investigated and their activities should be checked to avoid waste of capital and the consequent hesitation of the flow of capital in construction activities.

Assuming that the workers have little or no credit source, they have a more valuable asset in the form of their labour. The labour charges constitute about 37½% of the cost of construction societies. If the unskilled and even skilled labour requiring housing accommodation organise themselves into 'Shramdan' Societies and such assistance as becomes necessary is given to them, this will further reduce the cost of the programme. But this is perhaps a bold suggestion.

Co-ordination and planning over a long period and reviews taken every year and adjustments made in the long term plan will further ensure proper phasing of the programme and bring economy in its wake in avoiding overlapping of activity and incurring additional expenditure.

If the above suggestions are followed in addition to others, made in the matter of taxation reliefs, and liberalising loans and subsidies, and their repayment, it should not be difficult to invite the necessary resources into the construction activity envisaged in this programme.

Un-utilised Building Space

In view of the shortage of available land for construction of buildings, it is correct that as a policy it has been laid down that construction of single and double storied houses will not be permitted when multi-storied construction is possible, in the case of Government scheme. Construction to the full permitted height also ensures reduction of the average cost per tenement and for the provision of open space, necessary for light and air. However, if the matter is investigated and the survey of the existing houses where multi-storied construction is permitted, is taken, it will be seen that there are a number of houses where this has not been done due to the short supply of finance or the limited expectation of the landlord. After a proper survey, a programme should be chalked out for these houses, ensuring the fullest construction, compensation to the landlord and reliefs to the existing tenants of such constructions.

Maintenance and Repairs

Calculating on the basis suggested by the Planning Commission, it is stated above that about 1.05 lacs of tenements will have to be replaced in the coming twelve years. Within the next five years about 6,000 buildings containing 57,000 tenements will need replacement according to the study group. In this light it is in the interest of the implementation of the programme that to contain and prevent this replacement as far as possible by securing proper maintenance and repairs to these and other buildings constructed during the next twelve years. As suggested in above lines a proper dis-

charge of their duties by the Municipal Inspecting staff will immediately ensure at least the minimum requirements in this respect. Where, however, due to the inability or negligence or unwillingness of the landlord for any other reasons, buildings are not maintained and the necessary repairs are not carried out, a separate department should be established by the Bombay Municipality to carry out the repairs in time and to recover the expenses thereof from the landlords or where permitted from the tenants. This department should function expeditiously and should also require maximum maintenance once the repairs are carried out. The department should also consider the feasibility of granting financial assistance to the financially weak landlords. This department may be in a position of advising the landlords as to the possibility of utilising the maximum vertical building space.

This Repairs and Maintenance Department of the Bombay Municipality should also promote the formation of organisations of tenants and give immediate and proper response to the complaints received through such organisations. This will help in building up the spirit of co-operation and ensuring the necessary confidence in Municipal machinery. The department should also help the tenants to organise the work of repairs and recovering the expenses thereof from the monthly rents.

The Labour in the Building Industry.

Sturdy construction and speed in the construction are largely dependant on the efficiency of the labour employed in the Building Industry. The Planning Commission has already made a reference to the need of organising systematic training of masons, bricklayers, carpenters, plumbers and other personnel. An enquiry into the living conditions and other details is bound to prove useful in planning such training and in improving the efficiency of these basic personnel in an important industry. Side by side, the employment potential of this industry should also be investigated with a view to make maximum possible use of the employment opportunities it provides, which in turn may help solve the unemployment problem to some extent.

Planning Construction

A thought to the submission in the above lines must have opened to the mind of the reader the vast area that can be covered by the subjects relevant to the implementation of any house construction programme. It will, therefore, be readily admitted that planning for such programme will require the organisation of a separate unit, consisting of administrators, technical personnel the co-operation of the public and their representatives, for the formulations and the implementation of the programme. Once such an unit, properly

reflecting the opinion of the various bodies interested in the subject is formed it can start thinking of chalking out the programme.

The first step in this direction, as has been hinted in the beginning portions, is the conduct of certain essential and preliminary surveys, which should help in assessing the problem and indicating the direction of their solution. The need of co-ordination and speed in this basic aspect should not be lost sight of by the authorities interested in the solution of this vexed problem. Co-ordination will help in avoiding waste, duplication, and the proper phasing of the various stages in the implementation of the chalked programme.

The periodical publication of progress reports and the invitation of comments on them should not be avoided but fostered as a means of carrying the necessary propaganda in the interest of the solution of this problem, and public criticism could be made of use in introducing necessary amendments in the programme.

Although the programme is planned on the basis of twelve years consistent and uniform activity, within this programme short term plans should be arranged having the necessary adjustments to the situation existing from year to year.

With the guidance of the technical personnel available for planning proper experiments should be planned in light of the technical data necessary for further planning. Valuable suggestions and contributions have been made in this respect by the Comfort Survey Committee of the Union Government.

Proper training of labour employed in the building industry should also be studied and directed in helping to reduce the strains of solving the problem.

In the implementation of the programme proper checks should be maintained.

The Problem of Urban Housing in India

The discussion in the above lines has been mainly restricted to the problem of housing in Greater Bombay. At the same time, the discussion can readily afford an inquisitive mind enough material to find out some of the suggestions which can be uniformly made in respect of the solution of the Problem of Urban Housing in India. A detailed discussion of these suggestions will be unnecessary as the details of working out the suggestions will follow similar lines as those in respect of Greater Bombay. Some local adjustments will no doubt be necessary in case of the towns which will be newly springing as result of the implementation of the five year plans of the Country. The suggestions are listed below in a concise form.

*Suggestions Towards Possible Solution of the
Urban Housing Problem in India*

The suggestions are not exclusive and other suggestions that may be acceptable are to be included.

1. Properly conducted periodical surveys should be undertaken to enquire into the housing provided and the housing needs of the urban population. The needs may be analysed area-wise.
2. A survey of the housing needs of commercial and industrial employees should be undertaken through the employers and the employers should be persuaded and if necessary forced to satisfy the needs, with suitable assistance in the matter of tax relief and by way of loans and subsidies. The small savings of the employees should be organised through the employers and the credit societies of the employees.
3. To avoid contractors and intermediaries, direct departmental construction should be undertaken. Labour employed should be trained for the particular jobs entrusted to it presently. In the construction activity there should be full scope for experimentation of different materials and structures with a view to secure low cost and comfort to the tenants, under the guidance to technicians.
4. To organise 'Shramdam' Co-operatives of such of the labour as cannot find the balance of the funds required for construction. Co-operative societies should be encouraged to free the loans granted to them by providing proper incentives.
5. Provision must be made for the maintenance of statistics of cost structures and rent structures of various constructing agencies with a view to compare them and to effect a proper check on the waste.
6. Transport systems in the area should be asked to divert a part of their earnings for housing.
7. A proper investigation and check up should be provided into the activities of private builders to avoid mal-practices.
8. A survey should be planned into the un-utilised vertical building space and a programme should be chalked out to make use of the space thus made available. Landlords in need of funds for such further construction should be helped.

9. A survey should also be carried out into the repairs and maintenance of existing and new structures. A separate department should, if necessary, undertake the work of repairs and maintenance. Organisations of tenants should be promoted and assisted in the carrying out of the repairs.

The compiler wishes to thank the various members of the public, who freely discussed the above problem with the compiler and offered valuable information and suggestions concerning the solution to the problem. He is also indebted to the various Government publications on the subject. The Bombay Tenants' Association has also to be thanked for the opportunity of preparing and circulating the paper.

Statement 'A'

ESTIMATED POPULATION AND HOUSING NEEDS OF GREATER BOMBAY (*Figures shown in lacs*)

	<i>Population</i>	<i>Housing needs</i>	<i>Actual Housing</i>	<i>Shortage</i>
1951	30.00	6.00	5.00	1.00
1958	43.17	8.63	5.75	2.89
1961	45.50	9.10	6.50	3.10
1970	60.00	12.00	8.75	3.25

Note : Calculations based on the information supplied by the study group and the implementation of the housing programmes of the study group.

Statement 'B'

ESTIMATED COST OF CONSTRUCTION, DEVELOPMENT OF LAND AND THE PROVISION FOR BULK WATER SUPPLY AND SEWAGE DISPOSAL (*In crores*)

1. Cost of Construction :

	<i>Tenements</i>		
One roomed	30,000	@ Rs. 5,800	Rs. 17.40
Two roomed	24,000	@ Rs. 7,250	Rs. 17.40
More than two rooms	6,000	@ Rs. 15,000	Rs. 9.00
	<u>60,000</u>		<u>Rs. 43.80</u>

Average Rs. 7,300 per tenement.

2. Cost of development of land
with external services on the basis of 50 units
per gross acre and the cost of development at
Rs. 20.00 per square yard Rs. 11.60
3. Cost of provision for
Bulk Water Supply and Sewage disposal at
Rs. 50 per person and 5 person per tenement Rs. 1.50
- Total cost Rs. 56.90
- Average cost per tenement Rs. 9,480 each.

Statement 'C'

BUILDING CONSTRUCTION AGENCIES AND THE HOUSING
PROGRAMME THAT THEY SHOULD UNDERTAKE

(Figures for Amounts in Crores of Rupees)

	Tenements in '000s	Total cost	Own Resources	Subsidy	Loan
1. <i>Employers</i>					
Private	10	7.30	7.30		
	11	8.03	3.01	2.01	3.01
	21	15.33	10.31	2.01	3.01
Central					
Govt.	3	2.19	2.19		
Bombay					
Govt.	2	1.46		0.73	0.73
Municipal	4	2.92		1.46	1.46
	30	6.57	12.50	4.20	5.20
2. <i>Bombay Housing Board</i>					
Industrial					
Housing	10	7.30		3.65	3.65
Rental Basis	3	2.19		1.10	1.09
Other					
Scheme	2	1.46		0.73	0.73
Slums	2	1.46		0.73	0.73
	17	12.41		6.21	6.20
2. <i>Municipal Authorities</i>					
Slums	3	2.19	2.73	0.73	0.73
4. <i>Co-operative Societies</i>					
	5	3.65	0.91	0.91	1.83

	Tenements in '000s	Total cost	Own Resources	Subsidy	Loan
5. <i>Private Investors</i>					
	5	3.65	3.65		
	<u>60</u>	<u>43.80</u>			
<i>Bombay Housing Board</i>					
For development of land		11.60		5.80	5.80
<i>Municipal Authorities</i>					
For providing Bulk Water supply and Sewage disposal				0.75	0.75
Total cost		<u>56.90</u>			

A SCHEME FOR PROVIDING HOUSING ACCOMMODATION FOR THE MIDDLE CLASS

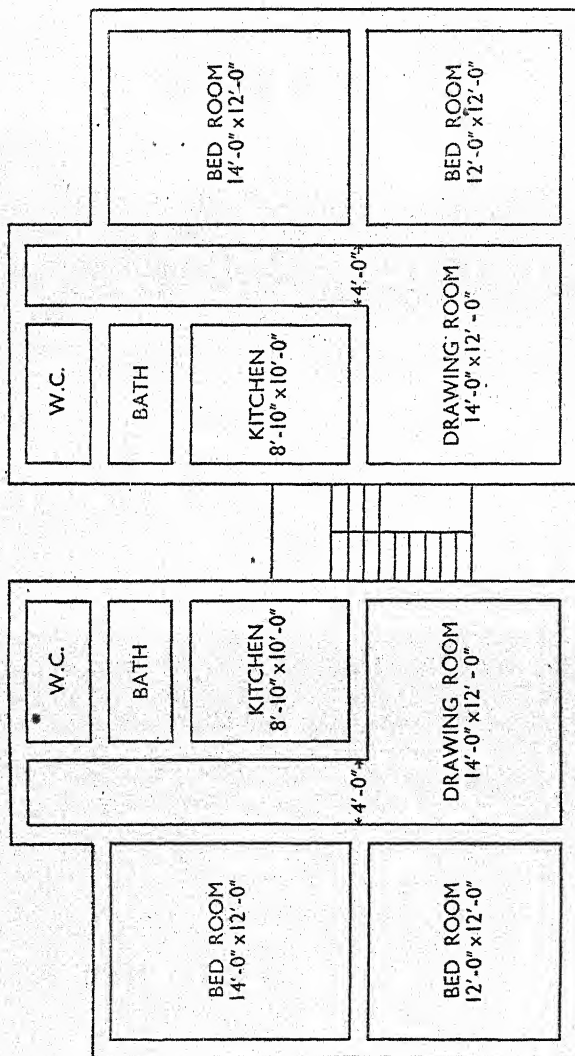
by

SHRI J. A. TARAPOREVALA

One of the most important necessities of life is to have a good accommodation. On this one factor alone depends the character of the people. Today there are thousands and thousands of families, who have no privacy for a decent living. The problem is getting more and more acute. It is not difficult to imagine what would happen to the nation if the majority of children are brought up in squalid surroundings without being able to call anything as a home. It appears that the problem brooks of no delay. The greatest strength of a nation lies in the stabilised class of men who have roots in the soil with a home they can call their own. It is this class that will not join in the flag waving processions, which have become the common sight of our towns.

The whole question of providing homes appears to hinge on finance, and we seem to be under the belief that nothing can be obtained except on the basis of cash. Trade can be carried on to the tune of crores of rupees merely on credit. But when it comes to the purchase of a house, the venue of credit appears to have been completely neglected. A scheme is being presented here, which would enable the common middle class man to own a house in a period of 20 years. There is nothing new in this plan which is the general practice of owning houses in the west. It is assumed that the requirements of a middle class family consists of two bed-rooms, a drawing room, a kitchen, a bath room and a W.C., all totalling about 716 sq. ft. as shown below :—

1. Drawing Room	14' x 12'	168 Sft.
2. Bed Room	12' x 14'	168 Sft.
3. Bed Room	12' x 12'	144 Sft.
4. Kitchen	10' x 10'	100 Sft.
5. Bath Room	4' x 10'	40 Sft.
6. W.C.	4' x 6'	24 Sft.
7. Passage	18' x 4'	72 Sft.



SUGGESTED LAY OUT OF
A 2 BED ROOM FLAT.

This requires a plinth area of about 1100 Sft., shown in the drawing at page 100. If a building is to be put up with one ground and two upper stories for each building, we may acquire an area of 3 items $1100 = 3300$ Sft. As this area is distributed amongst 3 tenants, each flat has to bear an area of land equal to $3300/3 = 1100$ Sft. = 120 sq. yd.

Cost of building @ Rs. 20/- per Sft. $1100 \times 20 =$ Rs. 22,000

Land 120 yards @ Rs. 25/- per sq. yd. Rs. 3,000

Rs. 25,000

Interest @ 5% for 1 Yr. = $5/100 \times 25,000 = 1250$.

Take Half as money paid out uniformly during construction

Rs. 625

Rs. 25,625

Let the first payment be Rs. 10,000 = 40% (q.p)

Rs. 10,000

Rs. 15,625

The remaining to be paid in 20 years.

Therefore annual payment, = $15,625/11.96$ (from tables)

(allowing 5% on Capital and redemption at 4%.

Rs. 1,310 p.a.

Rs. 109 p.m.

Municipal Rate

Rs. 36 p.m.

Therefore total a householder will pay = Rs. 145/-.

The hidden payments are the depreciation fund and repairs, which the householder must undertake.

Depreciation = $0.0027 \times 22,000$ 59.4

Repairs @ 1% 220

279

Therefore monthly Rs. 23/-

All that the scheme requires is a money-lender who has trust in the people. Such a moneylender is readily available in Government, Municipalities or a big Insurance Corporation. These are the reservoirs of money. They can afford to lend their big funds at a reasonable interest, in this case 5%. In fact Government can easily borrow money at $4\frac{1}{2}\%$ and lend it at 5% to the householders. It will be noted that for each house costing Rs. 25,000/-, Rs. 10,000, is paid by the owner as the first instalment so that Rs. 15,000/- is only the sum required in the initial stages. As the householder pays his instalment in a matter of 20 years, the whole loan is amortised and the house belongs to the buyer.

There are literally hundreds of people today who would put down Rs. 10,000/- cash and pay to the Govt. or a Housing Cor-

puration or the L.I.C. a sum of Rs. 109/- p.m. for 20 years, and the house would be theirs. Needless to say that until the last payment is made, the house should be mortgaged to the Government, Municipality or the L.I.C. We may even stipulate that only those people who have life policies of say Rs. 5,000/- would qualify to join the scheme.

Apart from the great service the L.I.C. would be making to the solution of this pressing problem of housing, we would get a fine form of investment giving us a 5% return and this would encourage thousands of people to take life policies to qualify for the scheme.

On the same lines a smaller accommodation flat could be worked out which would serve the needs of the lower middle class. If this scheme is widely advertised, there is a distinct possibility of two families joining hands together, each putting down Rs. 5,000/- and paying not more than Rs. 55/- p.m. as rent. Each family would then share the house with one bed room each and a common drawing room and kitchen. Today the same family would be paying a sum not less than Rs. 200/- p.m. for their housing accommodation, which would be in the majority of cases sub-standard from the point of view of health and sanitary conditions.

This is a field the Government should enter from its own business interest and also for the sake of the people.

While it is possible to buy anything on credit from a pin to an aeroplane, there does not seem to be any satisfactory arrangement in this country up to the present for the purchase of a house on credit. Government may start a statutory Housing Corporation and give it the capital in the form of a housing loan. Such a Housing Corporation can start constructing houses for the middle class and selling them on the instalment plan. Such a Corporation ought to be able to cut out the heavy profits which now accrue to the middle men who are putting up houses on ownership basis.

MONTHLY PAYMENTS FOR YEARS

First payment	25 (13.51)	20 (11.96)	15 (10.006)
Rs.			
10,000	97.1	109	130
8,000	108.5	123	147
6,000	121	136.5	163.5

The table at page 102 gives an idea of the monthly payments required to be made by a householder for 25, 20, or 15 years, dependant upon what the first payment is. The cost to the Housing Corporation for a building would amount to Rs. 15,625/- if the first instalment paid by the buyer is Rs. 10,000/-. This would mean that with a capital of 1 Crore, 640 tenements could be constructed. With a capital of Rs. 10 Crores, this would amount to 6,400. If every year 6,400 tenements are put up for the middle classes, in 10 years time, we have 64,000 tenements. If we take 5 members of a family as an average, we would be housing 3,30,000 people. Children belonging to the middle classes would then have a chance to be brought up in decent human surroundings. This would go a long way in producing a stabilised and powerful middle class, whose contribution to the prosperity and stability of the country would be much greater than merely the numbers would indicate.

Today there are large numbers of people working for Government and industrial houses. Most of them could afford to pay between Rs. 100 and 150/- a month for a decent housing accommodation. These people would be working for no less than 30 years either with Government or with other concerns. Why cannot they be trusted to make these payments for one of the most important necessities of life? Assuming the worst, that some of them default due to conditions outside their control, or even deliberately, it would be extremely easy to oust them under Leave & Licence Agreement and let the house to somebody else. If due to an untoward circumstance of the death of the householder, there would be no difficulty in getting an alternate tenant and in giving credit to the deceased's family for the payments made. Once the scheme is under operation, it is self sustaining. Is it too much to hope that the big Reservoirs of money viz., the Government the Municipalities, Insurance Corporations, Investment Trusts and others would undertake this benevolent activity for the sake of the people? Fear of doing anything on credit in connection with houses is totally unfounded. A man may run away with money, but he cannot run away with a house. There should, therefore, be no difficulty in accepting house as a first class mortgage for which a loan should be easily forthcoming. It has been the experience of other countries that housing investment is of the very best and there is no loss whatever. We should lose no time in implementing the type of scheme adumbrated in this paper.

CO-OPERATIVE HOUSING SOCIETIES

by

SHRI K. L. PANJABI, I.C.S. (Retd.)

The need for providing proper housing in urban areas can hardly be exaggerated. The provision of housing has not kept pace with the demand for it. Urban population has been increasing at a faster rate particularly because of the inflow from the rural areas. Recently a survey was done with regard to housing conditions in Bombay City. It was clear that the conditions are appalling. About 5 lakhs of persons have not only no houses to live in, but even lack living space. They live on the foot-paths. Further, 10 lakhs of people are living under conditions which can hardly be considered as sanitary or decent. In some cases, 10 persons live within a carpet area of 100 sq. feet. Although conditions in Bombay are more acute than in other cities of the State, yet the over-crowding in sub-standard living has become for the working and the lower middle classes a common feature of our city life. The provision of housing, therefore, should have a high priority.

The question is as to through which agencies this shortage can best be made good. In the pre-war days, private enterprise used largely to cater for housing, but its scope is now severely restricted. The restrictions imposed by the Rent Control Acts and the burden of the Estate Duty have made honest investment in house property unattractive. The cost of land and construction has gone up enormously and as private enterprise operating on the basis of profit can only build houses for the people who can pay for them, it cannot cater for the working and lower middle classes.

In a welfare State, the employers could reasonably be expected to house a large proportion of their employees, but very few employers have actually done so; and where this has been done, first priority has been given to the housing of their officers. The Municipalities, unlike those in some of the European countries, have shown little interest in housing. They have not even provided housing for their own employees. A progressive municipality, like the Corporation of Bombay, employs 47,600 persons, but houses only 25,000. Its subsidiary—BEST Undertaking—employs 21,000 people, but houses only 550 of them. The resources of urban municipalities in the State are so restricted that they are

all taken up more or less by the primary needs of providing water-supply, drainage, roads and sanitary services. Due to the reluctance of these municipalities to increase taxation, it is not possible for them to undertake any extension of housing.

The State and Central Governments have been paying more attention to housing of industrial workers and low income groups. Their resources are large, but they have not yet given housing a high priority. In respect of their own employees, they are rather slow. For example, the Central Government employs 1,64,000 persons in Bombay City, but housing only 18,000 of them. The State Government employs 40,000 persons, but houses only 2,500 of them.

Undoubtedly, Government must play a predominant role in relieving the house shortage in urban areas, but as the wheels of Government machinery move slowly, the pace can be accelerated by using the Housing Co-operative Societies, as their trusted agencies in this matter.

The Co-operative Societies need encouragement because they can deliver the goods at less cost and with greater satisfaction to the community. The financing of house-construction is the most important problem. In the case of the Co-operative Societies the resources of the members are mobilised to the extent of 25 to 30 per cent. The collective security of the society enables loans to be raised on a long term basis and at reasonable rates of interest. In Bombay Co-operative Housing Finance Society has been established and it gives loans to the extent of 60 to 70 per cent. at 5 to 5½ per cent. interest per annum. The demand for loans is about two crores of rupees at present. Its work has been slowed down because of lack of finance. It has approached the Life Insurance Corporation of India for a loan of one crore.

The Co-operative Societies also can bring down the house rents because on a rough estimate the cost of construction through Co-operative Societies is 10 to 15 per cent lower than through Commercial enterprise. This is due to the absence of profit motive and also the supervision of the members of the Societies.

Another advantage is that housing through Co-operative Societies can secure proper standards and full community life. Needs of the tenants receive first consideration and the community living is ensured for the persons as they continuously work together in order to maintain the common services. Such societies can provide playgrounds, school buildings, and other amenities and thus ensure that proper standards are observed. Owing to scarcity of suitable land in the urban areas, there is a good deal of exploitation leading to high and higher prices of land. Co-operative Societies can be trusted to make good use of the land.

It is, therefore, desirable that Co-operative Societies should receive the utmost encouragement in their building programme. Their primary needs are as follows :—

(1) Financial resources should be made available to them at cheap rates of interest on a long term basis. The societies can give the necessary security because at least 30 per cent of the cost of land and building is contributed by the members. The Central and State Governments, the Life Insurance Corporation and other investing agencies can help in this matter.

(2) Suitable land should be made available to the Societies. They cannot compete in an open auction. Suitable vacant land of municipalities or of Government should first be offered to the societies. A provision for compulsory acquisition of land already exists and is being used for the needs of societies, but the general feeling is that the acquisition proceedings take too long and severely tax the patience and enthusiasm of the small man who has put his life savings in the society. The acquisition proceedings should, therefore, be speeded.

(3) Building materials tend to go up in prices and some have even become scarce. Co-operative Societies should be given an adequate quota of controlled materials to enable them to carry out their building programme as quickly as possible.

(4) Some relief in the matter of municipal taxation is also necessary in order to give an incentive to the societies. Lower rates of house tax may be fixed for initial period of five years and this will actually lead to a spurt in house building activities and in course of time add to the income of the municipal bodies.

(5) Subsidies for housing of low income groups should continue to be given by the Government as at present. The cost of construction has gone up so high that it is difficult for the working and the lower middle classes to construct houses on which instalments have to be paid from their meagre incomes.

(6) In order to ensure that the Co-operative Societies are not exploited by undesirable elements, it is necessary to provide for guidance and supervision of the Societies. Recently there has been a tendency in Bombay to put up ownership flats constructed by private enterprise and later converted into Co-operative Societies. Before Co-operative Societies are formed or sanctioned, the Department should assure itself that there has been no exploitation by private enterprise.

Encouragement of Co-operative Societies by Government and the Municipal Bodies would yield the best results, particularly in the housing of lower income groups. It will encourage not only self-reliance but also the building of a community life in urban areas where the bonds holding people together are so loose. It will

also encourage the habit of thrift, because people would like to save money and pay for their own houses in easy instalments.

There is, therefore, a strong case for a high priority being given to Co-operative Housing Societies in the matter of providing finance, land, building materials, relief in taxation and grant of subsidies.

CO-OPERATIVE HOUSING

*With Special Reference to "Group Housing"
for Private Employees*

by

Prof. G. M. MANDALIA

THE SCOPE OF THE PAPER

This paper aims at showing the importance of "Group Housing" for people employed by private firms and limited companies-both in Urban Areas and Rural Townships under the frame work of Cooperative Housing Societies.

The private employees' housing problem includes two principal categories, namely (1) the employees of the small and big commercial firms, and (2) the labourers employed in the factories i.e., Industrial Labourers.

It is high time that the firms do something positive to help their employees in providing them with housing accommodation. Especially at this time when a very high importance is attached to employees' housing, and if the employees under reference are left discontented, it will imply that the employers are acting against their own interest. It is well known that most of these firms have earned huge profits during the war time and the period that followed it. Therefore, it is only proper that a share of these profits may be spent for the betterment of working class on whose labour huge profits were made. Viewing in this context, it is not the money which is short in our country, but the willingness of the employers to provide housing for their employees.

The limited commercial concerns and big firms could well afford to provide adequate housing for their staff. Again, the staff is perfectly entitled to demand quarters for their living, and if that be not feasible, at least some financial help, so that the employees could build their own houses. Some arrangement could be worked out so that the money could be loaned against insurance policy-cum a "free grant" of 20% to 35% of the cost of the building. The private firm should give preference to group housing projects, for the functional advantages of the self-help groups are numerous. Firstly, it will save considerably on the cost of hiring architectural and constructional firms; and secondly, by the labour of the prospective occupants

the labour cost will be saved and the wastage will come down to a minimum.

It might sound ridiculous to propose that the house owner with his family will participate in skilled as well as unskilled labour required in constructing a residential house. I have discussed the detailed methodology of the self-help system in the following pages. But in short, the groups will be formed for woodwork, flooring, walls, roofs etc. and since the same group will be working on one type of job for 10 to 15 houses, they will be able to do the work which could be favourably compared with the professional standards. I had an opportunity of seeing one such experiment at Indianapolis, Indiana, U.S.A. These houses are known as Flanners Houses, and they are self-help built or in other words, about 10 houses built by a group with the help of finance loan companies. etc., but principally by their own group labour skilled and other type.

ADVANTAGES OF GROUP HOUSING

The scheme now to be outlined has, at its end, the partial solution to the problem for the people who intend to build for themselves and live in their own houses. The scheme, Group Housing, will bring forth considerable saving in the time lost at the paper work in the office, and a good deal of money spent for material, labour, and land.

In brief it encourages the prospective house owners to acquire land for building of their houses in the desired area and in arranging for the building of such houses as groups. Half a dozen couples, or more, who wish to live in the same town, suburb or village, would combine to buy the land and would appoint one Architect to control the building of their houses as closely related parts of single group to be executed as one contract, and authorized on one building license, aggregating the sum of the limiting prices for each house.

Let us suppose that ten families wish to live together in the same locality, and compare what would take place in present circumstances with advantages that Group Housing Scheme would show.

The comparison should necessarily take into account the economies under various heads which may be in term of money, or time. Firstly the time taken by the Architect in preparing the plans and estimates, and then calling tenders, submission to and approval of the plans by Municipality. Next comes the other various permissions like building license, sanitary and water supply approvals. Thirdly, the services of the building contractors, main-services, water, electricity, sanitary fittings, etc. slowly start. The time wasted could be saved if the work proceeds under group Housing scheme. The list could be amplified almost indefinitely. It can be seen from the foregoing that a vast amount of practical, as well as paper effort could be saved and all this saving would be in the ratio of 10:1.

Other incidental advantages are too numerous to be mentioned separately e.g., the truck with the half load of material, the frequent transfer of equipments and materials from one site to another, these would become a thing of the past and the necessity for building labourers to travel long distance to work would be considerably reduced. The reader can, no doubt, supply from his own experience other instances. It would, of course, be necessary to work out the detail of the entire plan for Group Housing and to devise methods to overcome any practical difficulty that might crop up during its operation.

SELF-HELP LABOUR BY THE OWNER— ASIAN EXPERIMENT

There have been many housing experiments on self-help principles all over the world, and to my understanding and knowledge, many of them have resulted in success. I am going to draw my conclusions from the self-help housing experiments of the "Flanners House Homes", Indianapolis, Indiana, U.S.A.*

In May 1950, the first plots were sold to Flanners House Homes, Inc. for actual redevelopment on the basis of "the highest and best bid" and in September construction of homes, on self-help basis, began. Before making the start they got an architect interested in the scheme, and obtained and equipped a work-shop needed for single storey house construction.

The programme as developed on few years' experience and the steps through which an applicant is processed are generally as follows:

1. Prospective builder attends open meeting describing project, in which slides and films are shown about the story of self-help and past achievements of the Flanners House. This is followed by questions and discussions.
2. Applications to join the group project are invited.
3. Personal record obtained from employer.
4. Family consultant holds interview of couple in their home. At this time a general impression of the couple is recorded

*There have been number of experiments on those lines in the U.S.A. One of the most important experiments, and from which the Flanners House planners gained inspiration and encouragement was the one in south-west Pennsylvania in the coal mining town of east Millsboro. In 1937 American Friends Service Committee introduced the idea of self-help housing. Providing leadership and resources, the Quakers selected fifty miner families who pooled their labour and erected 50 two-storey houses using stone as principal building material. This work was accomplished in six years. Homes were built with 3500 man-hours each, and had modern kitchens, showers, oak flooring and central heating. These were valued at \$ 6,000, while the owners expense was about \$ 2,000 for land and materials. Mortgage payments were approximately \$ 13 per month.

- as well as pertinent information on family indebtedness, home management, and tax status, is also gathered.
5. The credit rating of the family is obtained.
 6. If the items 3, 4 and 5 are satisfactory, the applicant may be accepted for a trial week of work. Staff members then meet to hear the reports on the applicant, and decide whether or not to accept him into the program.
 7. The Board of Directors gives formal approval.
 8. Lots and house plans are selected, and an estimate of the cost of desired home is provided to them.
 9. The house and plot plan are submitted to FHA* which makes a conditional commitment.
 10. Each worker receives a box of tools, schedules of his work weeks, and is assigned to a work crew.
 11. Term insurance is taken-out on each builder.
 12. The group signs a notarized contract with Flanners House Homes.
 13. Group meetings of builders are held as the situation calls for.
 14. Financial provisions are made with the mortgage company.
 15. Feature item of a particular house are made and agreed on in consultation with the consultant.
 16. FHA conducts four inspections of the house at different stages of development.
 17. The builder takes out title and fire insurance.
 18. The mortgage is closed, Flanners House Homes is reimbursed from the mortgage funds and title is assumed by the new owner. The payment includes taxes, principal, interest premiums, etc.

THE BUILDING PROCESS

The basic principles of construction includes the following :

1. Standardizing units and materials.
2. Breaking down jobs into simple, easy to learn operations.
3. Specialization among crew to develop higher levels of skills.
4. The shop is used for pre-assembly and prime coat of paint applied.
5. General outline and building process:
 - A. The foundation shall be poured concrete. There shall be no basement. Heating ducts laid to registers and to central oil heating system. The warm air counter flow furnace is provided with a radial system of heat ducts.
 - B. Window units were purchased in quantity. It was found that this was more economical in time and money than manufacturing them.

*Federal Housing Administration of the U.S. Government.

- C. Prefabricated chimney shall be used and fire places excluded.
- D. Stone or brick veneer was to be used on house fronts only.
- E. Lawns were to be seeded and basic shrubbery planted.
- F. Stone was to be placed on driveway but no garages were included.
- G. Inside walls were dry walls (plaster board) with seamed joints and finished in clors as selected by the prospective owner.

OTHER FEATURES

1. Mortgages were obtained in the usual manner, the only difference being that the builder's labour served as a down payment (sweat equity).
2. Records maintained included progress charts, individual case records, and group progress reports. The time records were kept in detail and financial record system set up.
3. The first house required 5,600 man-hours as compared to 2,000 for the ninth. Recent figures show that 1,100 to 1,200 is feasible.
4. The houses are three bedroom homes with about 950 sq. feet of living area.
5. With self-help labour, houses appraised for \$ 12,000 to \$ 14,000 were costing the builder from \$ 8,500 to \$ 9,000.
6. Monthly mortgage payments on 20 year mortgages ranged from \$ 55 to \$ 75.
7. The Housing Director was constantly alert to new methods and to techniques not adapted to conventional building.

CO-OPERATIVE SET-UP IN INDIA — A SUGGESTION

The co-operative societies of different orders do exist in our country and some housing cooperatives have also been formed at one time or the other. A discussion of their merits or demerits are considered outside the scope of this paper, and therefore, I will try to describe a new type of setup for Group Housing so that cooperative housing movement in India might function better than hitherto known.

ORGANIZATIONAL SETUP

Organization is most important in any setup. Hereunder, I have shown diagrammatically a setup which will be most suitable for co-operative group housing in big cities. In case of small societies, the Director of Housing will also act as Executive Director and the receptionist and office staff will be part-time employees. The field supervisor will also act as estimator etc. In either case the overhead charges should remain below 6 per cent.

It may be noted, that many obvious relationships between prospective builder-occupants and other functionaries to effect coordina-

tion, both vertically and horizontally are not shown in this chart. It should also be realized that a very close inter-agency cooperation will have to be developed with the Housing Board, Government Co-operative Society Department, Banks, Private Firms (whose employees are participating in the project), Municipal Building Division, Union Government Housing Authorities and many other people.

WORK METHODOLOGY FOR GROUP HOUSING PARTICIPANTS

The system described below will prove not only useful but very successful.

1. An initial open meeting of those, who have responded to the advertisement, showing a positive interest will be held. There should be a welcome address by the chairman of the Board of Directors and he will introduce his officers. This will be followed by films showing the importance of the group work philosophy, and the works completed under the same or similar setup. After that, the meeting should be thrown open for questions and discussions on related matters.

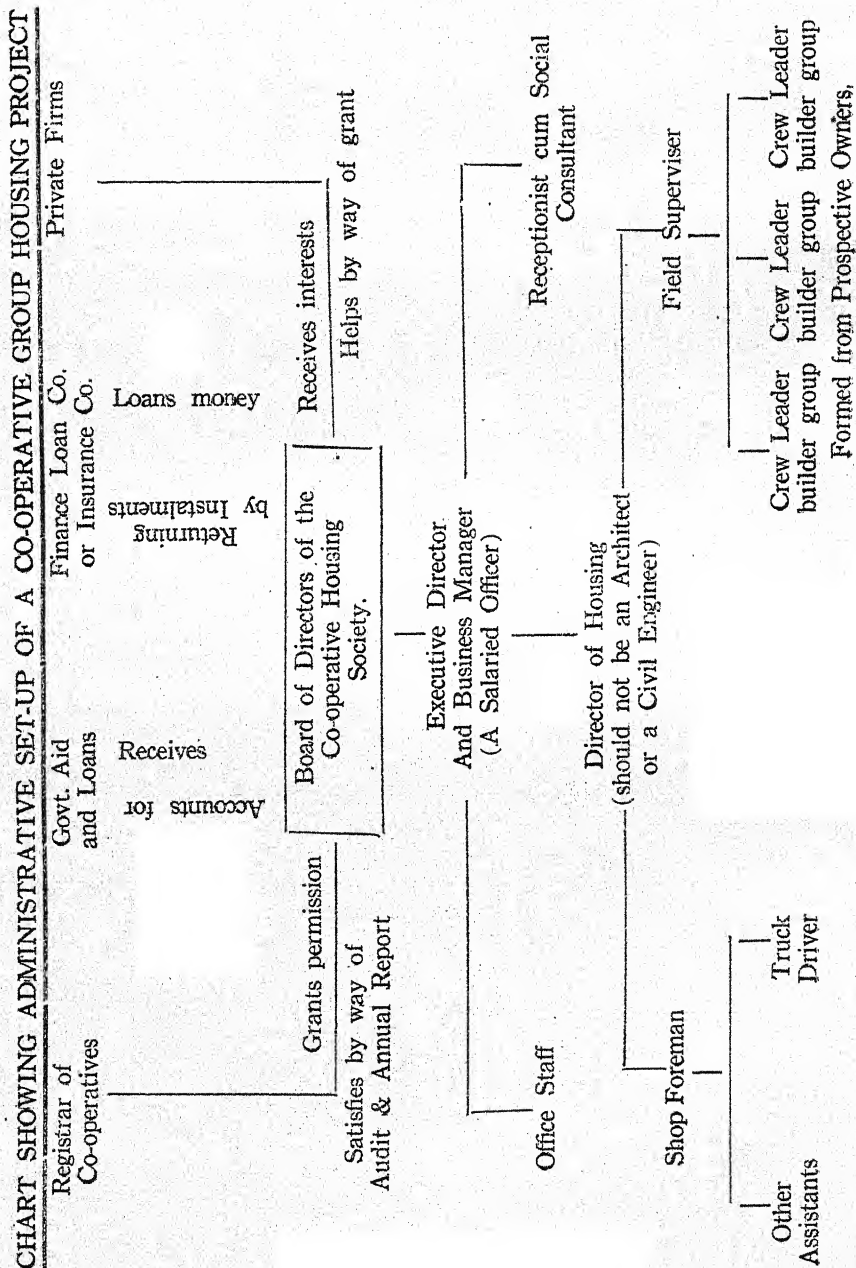
2. Those really interested in the project will file applications in proper proformas. The social consultant will pay a visit to the family and the firm in which he is working, so as to find out applicant's financial position and the help that his firm will give.

3. These applicants will be enrolled for a month's part-time training in the workshop and on the site of construction, so that their attitude towards manual work could found out. If the family comes out successful in this apprenticeship period a final contract will be arrived at assigning a plot of land and the group in which he will work etc.

4. 20 per cent of the total cost of the house will be deposited by the applicant and other arrangements with his firm, or finance loan company, or bank and Government Co-operative Housing Agency will be finalized.

5. The building crew responsibilities both in the workshop and on the site of construction will be made crystal clear to the builder-occupant. The duties will include record keeping of the hours of work done and job accomplished. In case of failure to report to work a penalty little more than the prevailing labour rates will have to be levied.

6. When the houses are completed the builders should be allowed to occupy them and papers for their individual ownership should be finalized showing the monthly installments to be paid on the hire purchase basis spread over a period of 10 to 25 years.



AESTHETICS, CONTROL AND HOUSE PLANS

The very fact that the groups of houses would be professionally designed by those qualified to do so, would lead to a coherent treatment, and set a term to those painful battles between applied opposing styles which are commonly seen in all cities.

We live in an age which is becoming conscious that pleasant and restful environment is not the prerogative of the few, but the just due of all. The Planning Acts of the first two decades are meant to achieve this end, and it is all the more to be deplored that present restrictions are producing effects in total opposition to the desired ends. I am referring to that travesty of a home so often produced by an honest endeavour to keep within license limits, with its cramped dimensions, poor construction and substitute finishes, as well as its total inadequacy in housing anything but the smallest family.

Then the question to be examined is how to overcome these drawbacks which are caused as a result of unforsighted restrictions. A brief outline of some suggestions is as follows:

1. As it is well known that our municipal laws and bye-laws were drafted years ago which need a thorough recasting because at that time scientific knowledge about town planning had not advanced and importance of civic design and street-scape was not well understood. Even under the present set-up greater freedom in planning is possible if a subdivision is planned from the beginning. Of this provision Co-operative Group Housing should take advantage.

2. Suitable sizes of plots for our tropical climate is a matter of concern to all of us. For the purpose of cross flow of breeze, houses on squarish plots are more suitable when compared to a narrow rectangular plots. In view of this square and rectangles of golden sections should be preferred.

3. The conventional practice of leaving few feet on all the four sides of a plot has caused numerous difficulties and hence under the subdivision control an integrated arrangement of plots and houses should be worked out on the basis of a Master Plan.

4. The density of people in residential areas (one floor structures) has a wide range; in the U.S.A. densities as low as 10 to 12 are common, and in Britain and India a density of 30 to 35 has been considered ideal from Howard's time, whereas Prof. Hilberseimer in his book, *The New City*, shows possibilities of 80 to 120 persons per acre with complete diagrams of houses and layouts in an interesting and congenial pattern. Looking to our present day needs, proposals of Prof. Hilberseimer are most suitable against any other.

5. Architectural controls in new undertakings are most vital for obvious advantages. This vital aspect has been neglected so far, now that the time has come, it needs not only recognition but implementation.

6. The scheme would also be instrumental in preventing unplanned development such as was and is common in majority of our city extension schemes.

7. The acceptance of standard plans and monotony caused by them in spite of good layout is a common sight all over the country. A new exploration in standard plans is called for to satisfy challenge of time. The new lead should keep two important aspects in mind. They are, the easy readability, and scope for expansion—if the client decides to add something after a period of time when he gathers more money. Such plans are possible in which permutation and combination will play an important part. In so doing the standardization could be made a servant of Man rather than enslaving him to its limitations.

8. Group housing scheme could operate well if all the factors blend very well in one neat pattern. But, it is too much to hope, that the savings affected by the joint venture could provide an individual with spacious, solid and beautiful house with all the accommodation in one leap. However, it should not be difficult to achieve these, if the houses are planned with future needs in view according to the families' growth and the funds that they could spare for expansion of their dwellings.

RECOMMENDATIONS AND OTHER CONSIDERATIONS

In an undertaking of this magnitude, there are numerous difficulties which come up at one time or the other in the course of its practical execution, and therefore, following suggestions are offered as prerequisites to the scheme.

<i>The type of Work.</i>	<i>Authorities Involved</i>
1. It may be necessary to enact, suitably amended Municipal Legislation with particular reference to Co-operative Group Housing.	State Government and Municipal Authorities.
2. There should be wide publicity to acquaint the public with the scope of the Housing.	Housing Cooperative Dept. of the State Government.
3. An Advisory Bureau should be set-up possibly under the direction of the Local Authorities whose functions would be to advise applicants	Local Bodies, like Municipality or Cooperative Society Department.

*The type of Work.**Authorities Involved*

regarding possible sites, to put them in touch with one another or a co-operative group housing society and where necessary with qualified professional advisers."

- | | | |
|-----|---|--|
| 4. | The cooperation of individual members of a group might be hard to secure especially in the early stages, but the promise of fulfilment of an essential need would go a long way towards solving this problem. "No cooperation—NO HOUSE" might be the watchword. | Social workers of the project. |
| 5. | The legal aspect would require consideration, but it is envisaged that the group would appoint one legal representative, as it would appoint an architect, and the land purchased, at the outset, would be covered by a joint ownership. When the group has reached its objective and settled in the members would be free to take the necessary steps to achieve individual ownership. | Executive Director in consultation with the legal Advisor of the Co-operative. |
| 6. | Initial payment cum sweat equity totalling to more than 20 per cent. | Individual applicant. |
| 7. | Help for the down payment for an individual participant. | His employer. |
| 8. | The financial arrangement for land purchase and the subsequent building operations, would probably constitute a difficult problem, and it would sound obvious that some system of long term endowment insurance might be the best way to deal with this. | Insurance Companies.
(L.I.C.) |
| 9. | Establishment and operations of finance loan companies by private individuals on the similar lines of Finance Loan Companies in the U.S.A. would be very useful. | Banks and other interested parties. |
| 10. | Establishment of workshop facilities with lounge and rest rooms for the participants. The tools and other | Central or State Government. |

Concluding Remarks

In this paper various facets of Cooperative Group Housing Scheme have not only been described but a workable methodology has been shown. If an experiment based on the above lines could get a proper start in near future, then we can hope to see that the urban dwellers in India shall have their own homes—if not big and luxurious—with reasonable accommodations, healthy environments and congenial conditions. All these are the needs of present day population which have to be provided.

PROBLEMS OF URBAN HOUSING

*Financial Aspects—Resources—Agencies—Taxation Policies
Disincentive Incentives*

by

SHRI C. R. DESAI

Financial Aspect.

The shortage of Urban Housing accommodation is expected to be about a crore houses over the whole country by the end of the Second Plan period. The estimated cost of the same may be put at Rs. 8,000 crores. This includes replacement of existing old dilapidated and also such sub-standard slummy structures.

If the old structures are to continue as they obviously will, the need of new houses for houseless population may be about 50 lakhs houses minimum, which would cost Rs. 4,000 crores.

So far as the Bombay State is concerned the need of new houses may be put at 10 lakhs considering the fact that there is expected to be 50 per cent increase in urban population of this State during the decade up to 1961 and the cost thereof would be Rs. 800 crores.

The effort to meet this need over a period of ten years by 1971 would require annual expenditure of Rs. 80 crores on housing in this State.

Presently the overall outlay on new housing in urban areas in the State may be to the extent of about Rs. 10 crores annually considering both private and public investment.

Thus the annual requirement of Rs. 80 crores for new housing will need an eightfold effort in the State.

Resources

Availability of resources to meet this effort in private and public sectors does not appear to be a practical proposition.

The problem of urban housing, however, is a massive challenge endangering by its non-fulfilment not only the stability of the social structure but also the economic potential of the country whereas in occidental countries industrial prosperity which gave better living standards and wider opportunities for education has awakened to a great extent the spirit of nationalism and local patriotism

and an urge to work, in oriental countries like ours, the evil effects of poverty and want suffered over a long period have to a great extent dulled the conscience of the common man and has subdued his emotions for nobler efforts. The Easterner who has lived long in poverty stricken surroundings and slummy conditions has been forced to live a humdrum existence without any ennobling content and being sapped of all energies and incentives he works more or less under duress. He has thus become a poor instrument for producing wealth.

India is making an effort to industrialize rapidly with a view to be able to produce more wealth and her two Plans have, therefore, been framed to use most of the resources for industrial expansion and agricultural production. Thus projects which do not produce wealth have a low priority. Housing has a place in the plan but being a social welfare project it has been assigned a low priority. It is argued that only when more wealth is produced the common man will have a right to demand social welfare schemes.

This in short is the content of our economic planning. It may, therefore, be fairly assumed that resources for providing housing accommodation will not be forthcoming in the required measure.

On the other hand it appears that in oriental countries the common man has to be lifted from his depressing environs by providing him necessities for a peaceful healthy existence before he is enabled to put forth larger and sustained efforts for higher production. The economic planning in operation and the necessity for fulfilling the barest needs of the common man for a fairly healthy living between them has created a vicious circle.

There appears to be a case for reassessment and in ultimate analysis it seems to be imperative to allot more funds for such social welfare measures as provision of housing accommodation to enable the common man to be a fit and efficient instrument for production of wealth.

It has to be examined as to how to obtain the resources needed by the State for urban housing amounting to Rs. 80 crores annually. All resources will require to be pooled. Private investment must be encouraged and public investment must be enhanced. Due to higher cost of construction and price index and corresponding lower wages obtaining at present there is a great disparity between economic and social rent, with the result that private investment would not cater to the housing needs of the low paid man, who constitutes a preponderating majority to build on a large scale for him. While the State must do so, a responsibility will have to be and ought to be cast on every employer to provide housing accommodation to his houseless employees. Government has started building for its employees, local authorities and Corporations.

are trying to do likewise. But the effort is not adequate and the same will have to be done on a positive plan to an adequate scale. All other employers of Commercial and Industrial establishments and of factory workers must be made to provide housing to their houseless employees according to a plan.

It must be decided as to what should be the social rent. In western countries expenditure on house rent represents about 20 per cent of the wages. In U.S.A. it is as high as 25 per cent of the wages.

If it is to be made possible to provide them housing accommodation the employees shall have to bear 20 per cent of their wages towards house rent. The difference between the economic and the social rent at 20 per cent of the wages will have to be borne by the employer and the same will have to be reckoned as an addition to the wage bill.

Provision of rental housing from year to year will cast a heavy burden on the employing industry or trade and commerce and if the same can be lightened by practical devices they should be adopted.

The houses built by the employers and the State may be sold on hire purchase to the occupants. To encourage the occupants to go in for hire purchase and to induce them to decide to make an effort and sacrifice to lay by necessary savings to pay the instalments, the actual cost of the house may be subsidised to the extent of at least about 10 per cent. In fixing the instalments the rate of interest should be the rate at which loans are raised. The period of repayment may be fixed at 10, 20 or 30 years whatever may be acceptable to the occupant. The sale may be preferably to a Co-operative Society though the sale to an individual should not be prohibited. No meticulous provisions need be made as to how exactly ownership will operate and who will manage the services and collection of taxes. So long as the instalments fixed for the hire—purchase are received no other considerations should be allowed to come in the way of encouraging such sales by hire—purchase.

Sale by hire—purchase will contribute considerably towards the needed resources as the instalments received can also be ploughed back in building more houses.

In order to augment the financial resources for investment in housing substantial amounts out of the Provident fund collections of various Provident funds, either Government, semi-government or private, should be allotted for housing.

The Life Insurance Corporation should earmark every year a fairly large sum for investment in housing by way of loans to house building agencies including the financing agencies for the Co-operative Housing Societies.

The various scheduled Banks should be made to earmark every year substantial sums for investment in housing by way of loans.

Agencies

In order to encourage the private investors finances should be advanced to them on certain conditions. The private investors should contribute a substantial portion of the capital investment and agree to have a net return not exceeding 5 to 6 per cent on the capital invested by them. The State may advance them monies at the rate of interest which may be $1/2$ per cent in excess of the interest at which loans are raised by the State.

The formation of House Building Societies or companies may also be encouraged by the State. These house building societies may build houses for hire—purchase and for this purpose they should be advanced finance by the State on their agreeing to have restricted net return on their capital of about 5 to 6 per cent only.

The State Housing Finance Agency which advances loans to Co-operative Housing Societies should be enabled to obtain finances as required by it. Presently the Agency advances loans to the extent of only 60 per cent of the estimated cost of construction and land.

In order to give a greater incentive to the formation of Co-operative Housing Societies on a large scale and thus attract investment of private capital in greater volume from small investors, it is suggested that the quantum of loan to be advanced to them should be raised to 80 per cent and the State may guarantee any loss that the Financing Agency may have to bear in so doing due to default in payments or depreciation in the properties.

Continuance of existing Subsidised Schemes during interim period

The scheme of subsidized housing in operation at present should be continued and the existing agencies of Housing Boards in various States should continue to function and build houses and allot them at subsidised rents not only to industrial workers but also to other sections of low income groups, till such time as all employers build houses for their employees from year to year according to some definite plan as envisaged earlier.

Subsidised housing scheme solely for industrial workers is creating evil sociological problems in cities like Bombay, Ahmedabad etc. where big housing colonies occupied by industrial workers alone, some of them holding populations ranging from 30,000 to 240,000 in each are completely segregating industrial workers from other sections of the population. This must stop before mischief develops on a larger scale and housing colonies for all sections of the population

them accommodation at subsidised rents. A general subsidised housing scheme for all low income Groups is absolutely essential in the best interests of the society and the country.

Taxation Policies

Regarding the Taxation Policies of the Government they should be such as to make it possible for employers to invest monies in building houses for their employees.

The Central Taxation Policy should also make it possible for private investors to obtain a reasonable net return on their investments in housing and by providing inducement to them for such investment as in the Small Savings Scheme.

The State Government and the local authorities should provide requisite relaxations and concessions in their taxes so as to encourage house building on a large scale by all agencies for the common man.

Disincentives

Investment in Urban Housing by the private sector has been scared away on account of certain disincentives as frequently represented by intending builders. More important of them are listed hereunder:—

- (1) Inadequate return on the investment due to heavy taxation—Central, State and Local.
- (2) Certain restrictive provisions in the Rent Control Act, *viz.*,
 (a) Freezing the rents of old buildings at pre-1940 level and subsequent increase authorised being inadequate (b) Conditions practically making it impossible to evict tenants and further to prevent them from trading in the tenements etc.
- (3) Existing heavy municipal taxation, and its continuous rise and the imposition of further betterment charges under the legal cover of varying the Town Planning Scheme years after its completion.
- (4) Very inadequate transport facilities by rail and road.
- (5) Lack of developed building sites due to non-provision of essential services, like roads, water supply mains, drainage sewers, etc. and that too in spite of heavy municipal taxation.
- (6) Unpopular Town Planning Schemes as also usual delays in financing the Town Planning Schemes.
- (7) Scarcity and high prices of essential building materials.

Incentives

It is represented that if investment in urban housing by various agencies is to be encouraged there is need for providing certain incentives more important of which are given hereunder:—

- (1) Relief in Central taxation so as to enable investment in housing to obtain the return similar to that available by the tempting inducements for example as investment in small savings.
- (2) Certain very restrictive provisions in the Rent Control Act should be suitably modified so as to ensure that private housing accommodation is not exploited by the tenants.
- (3) Individuals, Co-operative Housing Societies and recognised institutions should be able to obtain loans speedily at reasonable rate of interest on easy terms which can be done by the Government guaranteeing the losses to the Housing Financing Agencies.
- (4) House Building Societies, Local authorities and Housing Boards should construct houses for sale on hire—purchase on easy terms.
- (5) In the case of sale of new houses on hire—purchase to low income groups whether individuals or Co-operative Societies the actual cost may even be subsidised to the extent of overhead charges.
- (6) In the case of new houses carrying rent upto Rs. 100/- per month occupied by low income group families, the income accruing therefrom should be exempt from Central taxes for a period of ten years.
- (7) In the case of houses carrying rent upto Rs. 100/- per month occupied by low income group families the local authority and the State Government should give rebate of 50 per cent of the General taxes and the Urban Immovable Property tax respectively for a period of ten years.
- (8) In the case of all new residential buildings non-agricultural assessment on land should to be levied at least for the first period of five years after the completion of the buildings.
- (9) Government should take steps to regulate the supply—timely and at reasonable prices—of building materials.
- (10) Government should take steps to enable those who intend to build residential accommodation to secure requisite land for the purpose in a developed site at reasonable price and in reasonable time.

Hardships caused due to lack of housing accommodation and the privations and sufferings the common man is undergoing at present on that account if not alleviated systematically in reasonable period of time, it is feared, will bring about tragic consequences. Very bold and imaginative action by the State is, therefore, necessary.

PROBLEMS OF URBAN HOUSING

Legislative and Administrative measures—Planning including Master Plans and Development Plans—Land Acquisition—Housing Standard and Material

by

SHRI C. R. DESAI

General Picture

Urban housing emerged as a world problem after the last war. The European Countries were required to face the problem almost instantaneously after the cessation of war because in those countries the damages to residential accommodation was of such magnitude and the climatic conditions so rigorous that if the same was not attended to at once, it would have upset the economic and political conditions and stability in those countries.

The housing problem in the U.S.A. was created due to different reasons. There the problem emerged on the one hand due to tremendous industrial development and urbanisation of industrial centres on a vast scale and on the other due to greatly improved economic conditions of the population demanding better living conditions.

In India the problem owes its origin to numerous causes. A large number of war industries were hastily located and established in existing urban centres which attracted workers on a very large scale to these centres; then the partition, which created the refugee problem, also necessitated rehabilitation of the refugee population mostly in urban centres so as to provide them employment; then again the intensive development of new industries pursuant to economic planning by Government during and after the First Five Year Plan further tended to attract rural population to urban centres where new industries were mainly located. The influx of large populations thus to urban centres has created an acute shortage in urban housing. With increasing industrialization socio-economic changes have begun to operate on a large scale and the age old pattern of society and family structure are undergoing transformation. Greater individual-

ism is developing which is breaking up the age old joint family system with the result that family units and households are increasing which in turn demand more housing accommodation.

During the pre-independence era with the establishment of industries, that as a rule occurred in urban centres, the old cities developed and grew haphazardly. There was little or no regulation of building activity and planning did not exist. The ideas of modern Town Planning began to filter into this country after 1915 i.e., the First World War. But before Town Planning could prevent further deterioration almost all the urban centres in the country had been damaged beyond repairs. The old cities due to historical reasons had taken shapes, as they did, presenting pictures of narrow streets crowded and ill-planned houses, lack of essential services like pure water supply and sanitation and entire lack of other civic and social welfare amenities. The new growth occurred round the old built up area, and as there was neither control nor regulation. New growth has been everywhere equally bad.

At the end of the last century and in the beginning of the present one, necessity for improving the conditions of civic services and orderly planning of city expansion and growth was realized especially in the few big cities of this country with the result that special bodies like the Improvement Trusts and Development Boards were set up at places like Bombay, Calcutta, Madras, Kanpur, etc. These bodies did good work but as their sphere of planning and activity was limited in scope and as their operations over-lapped those of the existing civic authority in the area, they would achieve but limited results and as time elapsed jealousies developed between them and the main civic authority which hampered further progress. It has, however, to be admitted that the Improvement Trust and the Development authority in Bombay made substantial contributions to the planned growth of Bombay City while those bodies were in existence. But for the good work done by them this City would have been a hopeless mess of slums and non-negotiable streets and roads resulting in dwarfing the economic growth also of the city.

However, as their sphere of activity was limited and very local in character, they failed in achieving comprehensive planning of the entire civic area.

Another factor which has helped in haphazard growth of urban centres is that people with a profit motive and who discern that the city is developing have been purchasing lands and still purchase lands on the periphery of the existing town and in the undeveloped suburbs and as there is very little control of the authorities in these suburban and peripheral areas haphazard structures are put up devoid of any essential service creating new slums and problems.

It must be realized that in all big cities, there is competition for land on their peripheries. If there is to be an air field or if it

is to be a factory site, or if there is going to be suburban development everybody wants lands in the peripheries of cities. It is a question of developing larger peripheries or developing in other directions opening up more land.

Thus with our existing urban centres haphazardly grown, narrow streets, and crowded houses having established slum conditions in the old parts of these centres, and with the unplanned growth that has gone on for years which has further complicated matters, then again the increasing industrialization of these centres attracting more and more population and factories and development springing up willy nilly in the suburban areas and on the peripheries, with the growth, coupled with the lack of financial resources for carrying out regulated urban development due to competing demands of other developmental activities, this country is now facing a very massive problem of urban housing.

Need for Legislative and Administrative Measures

Fortunately urban housing has secured a place in our National Plans. Though it has secured a place, has failed to get a priority with the result that inadequate resources have been allotted for it in the first two plans.

Apart from this it has failed so far to bring it home sharply to the authorities that whatever that may be done in respect of urban housing should be done after comprehensive planning. Consequently we in this country have no comprehensive legislation for Town and Country Planning. We have no unified or even local urban land policy. We have no policy for industrial location. We have no policy for Housing Finance.

Due to lack of legislation and planning, difficulties are multiplying and further drift may aggravate the chaotic conditions, ending in disasters.

Conditions in Bombay State

The problem faces the whole country and a national policy is, therefore, necessary to tackle it. But the intensity of the problem is greater in the State of Bombay firstly because the Bombay State has advanced more than other States in industrial development and secondly this State is far more urbanised than the others. Forty per cent of the industries of the country are located in this State and it has more than 400 urban centres *i.e.*, towns and cities each having population over 10,000 people. According to the last census the average urban population in the country was about 17 per cent whereas that in the reorganised Bombay State was about 28 per cent. Moreover further urban development in this State has been far more intense even after the last census and the population in almost all urban centres is expected to increase by over 50 per cent during the decade after 1951. This is apparent from the fact that the

population of Bombay City has grown to about 43 lakhs now whereas it was about 28 lakhs in 1951—That of Ahmedabad was about 7 lakhs and it has now gone up to about 10 lakhs. Other cities have grown similarly.

The steps taken in Great Britain

The problems created by urban housing have been sought to be solved differently by different countries elsewhere in the world. But it would be of interest to know how exactly it is being solved in Great Britain. The methods adopted, their having a democratic approach, may be applicable in our country.

Legislation covering the entire area

In Great Britain they have been convinced that there cannot be a rational system of planning without having two things; First is that it is universal and covers the whole area of a country and secondly that it has a Cabinet Minister to speak for it.

Planning and Urban Land Policy

The planning set up in England is based on four basic points.

The first point is that the land use of the whole country is controlled, not a particular part but the whole country. The control of land use is again based on three principles. The first is to attain a regional balance that is to say, to try to ensure that industries grow where there is surplus unemployment and do not grow where there is a shortage of labour, to ensure that within each region industries of various kinds exist so that there is not a monopoly of any one industry in any one area, to ensure that housing and other services are distributed where they are required. The essential element for this principle is, therefore, industrial location.

The second principle on which land use is controlled is the decentralization of great cities. They believe that with modern transportation it is perfectly possible for a great city to decentralize over a large area and still remain one. The principle on which new towns in England are built is on the principle of decentralization of satellites, but the satellite towns will not require dormitories. Their industry goes with them and the only link with the parent metropolis is a political one. Essentially the new towns are independent and yet are part of the regional frame work of the metropolis.

The third principle is to establish over the whole country a framework within the rural areas, the provision of services in a logical way. Central villages are chosen over the country as key villages for services like education, shops and other community services so that every little village is within easy reach of a village that has every service that it requires.

The second point is regarding payment of land compensation due to control of land use by zoning. They have laid down

a rule that the loss of development value which occurs through zoning does not attract compensation and there is no payment for loss of development rights. There is an exception, however, in a small category of cases where land was ripe for development on a certain date and if the courts agreed that on that date it was to be developed then only the compensation was payable.

The third point is where land is taken for development by compulsory purchase, compensation is paid at its existing use value and does not have to take into account any potential value that the land might have. If a piece of agricultural land is taken for housing purposes, the land is paid for at its agricultural value and not at a mythical housing value.

The fourth point is the limitation of population is achieved by the simple method of controlling the location of industry. They consider that industry is the great attractor of population. If industry is sent to a place where more population is required such as new towns or to places where there is a population that has not enough work to do then the population is prevented from going to places where it is not wanted. It is thus that they are controlling the population of London.

Conditions Essential for Planned Urban Housing

Provision of urban housing has to be considered in all its contexts, and in order that the same may be done in a proper manner, planning is necessary. Planning thus declares itself first in terms of housing to ensuring that housing is provided in an integrated manner so as to make the urban centre a healthy composite living organism where every individual has an opportunity for using his energies and talents and attainments to the best advantage of himself, his family and the community in general. Legislation for implementation of planning is essential because in New Housing Development, the fundamental points to be achieved are :—

- (a) Cheap and suitable land.
- (b) Economic use of land, layout and housing design according to local conditions to suitable standards making use of existing facilities.
- (c) Development, fitting in the Master Plan according to sound Town Planning principles.
- (d) Land acquisition of large development areas by a speedy procedure.
- (e) Control of building materials.
- (f) Pooling experience regarding materials and building methods.
- (g) Enforcement of healthy Housing Standards.
- (h) Prevention of temporary or flimsy building construction except semi-permanent structures sought to be put up by individuals for own use, or for squatters from public funds.

All these can only be achieved by requisite legislation and adequate administrative machinery for implementing such legislation. There has to be a National Plan, a Regional Plan and the Master Plan for the locality. To achieve this desideratum the following are the requirements :

Administrative Measures

- (A) There must be for the country and for each State also, a specific Ministry which may be called the Ministry of Town and Country Planning, Housing and Local Government.
- (B) Planning must be national, regional and local including rural areas at every level because the solution of many problems is not located where the difficulties arise; New activities should counterbalance the attractive forces of big cities. Planning should be based on careful socio-economic investigation.
- (C) There should be administrative bodies at every level to provide the necessary machinery to formulate schemes for development and to control their implementation.
- (D) A comprehensive law must be enacted for the whole country, setting up different consultative bodies interested in the subject and providing a statute on urban land as useful as the statute on agricultural land.
- (E) Such statute should provide *inter alia* the planning bodies, the necessary means of fiscality as good planning benefits all.

Use of existing State Legislation and Machinery in the interim period

Considerable time may elapse before comprehensive legislation as indicated above is enacted for the country and the different States but in the meantime there will be efforts of varying degrees throughout the country in meeting the challenge created by the problems of urban housing. It is a matter of gratification that the Bombay Town Planning Act has been amended in 1954 which gives us legislative sanction and direction for preparing Master Plans or rather Development Plans for all urban centres which are in the jurisdiction of a local authority. It has laid down that such Master Plans must be prepared by every local authority within a period of four years and such four year period would expire in March 1961. The State has issued a directive to all local authorities to submit the plans accordingly.

Perhaps due to lack of preparation or lack of enlightenment, and dearth of technical personnel required for preparing the Master Plans the local authorities, it is feared, may not be able to comply with the State directive in time, or for quite some time. In that event the Consulting Surveyor to Government has to assume the responsibility of preparing the Master Plans.

Since the Development Plans are under preparation, it is a golden opportunity for the State and its population to see and ensure that those Plans are prepared so as to provide for the orderly development of the towns and the surrounding areas.

It is a matter for further gratification that the Director of Industries has prepared Master Plans for the different regions of the entire State for regulating future industrial development in the State.

As location of Industry is the main factor in regulating the growth of population and the size of the town, the Master Plans to be prepared by the various local authorities should take into account the proposed industrial development as planned for the future and provide adequate space for it while formulating their Master Plans. These Master Plans will no doubt be prepared on modern Town Planning principles laying down population densities and zones for various land uses and also provide adequate spaces for various utilities and amenities.

Necessity for provision of green belts

The Master Plans should make provision for green belts to prevent indiscriminate expansion of the town limits and its population.

Necessity for provision of sites for Industrial Estates

As most of the towns are likely to serve as key towns for the surrounding villages, provision should be made in the Master Plans for adequate space on their peripheries for industrial estates for housing medium scale and small scale industries which will be established in the course to provide employment to the local and other population of the surrounding villages.

Necessity for engaging the services of a separate experienced Town Planner

The preparation of Master Plans for our towns which is under way has been fortunately taken in hand at a crucial time, which opportunity if fully utilized, will make definitely for healthy and orderly growth of our State.

It may be submitted that the preparation of Master Plans of our towns must not be left to untrained and inexperienced staff of the local authorities but must be entrusted to trained personnel under the direct and effective control of a full time Town Planner, that may be specially appointed by Government for the purpose.

The organisation of the Consulting Surveyor to Government is ill-equipped for the task. It has various other and miscellaneous duties to perform like the valuation town planning schemes and to finalize and arbitrate the town planning schemes prepared by local authorities.

A golden opportunity of rendering valuable service to the future generations and to the State which has been created will be lost irretrievably if it is not fully seized and used to best advantage timely. It is, therefore, suggested that the work of preparing Master Plan of our towns may be entrusted to an experienced Town Planner equipped with adequate staff who may be appointed specifically for this purpose. This only will ensure satisfactory results which will give us effective Master Plans as desired by the State Government and the Legislature.

Necessity of making provision for enabling the local authorities to provide essential amenities

In view of the increasing urbanization of our State it is being contemplated to make specific provision of funds in the Third Five Year Plan to finance orderly and planned growth of urban centres and to ensure provision of necessary amenities and conditions of sanitary and healthy living for their inhabitants. Such provision would enable the State to render financial aid to enable the local authorities to provide necessary civic amenities in their areas.

Necessity of setting up a Ministry for Town and Country Planning

To be able to fulfil the good intention of the State authorities, this Seminar may recommend the Government to create a separate Ministry for Town and Country Planning, Housing and Local Government as then alone the State will make the necessary headway and progress in enacting legislation, setting up planning machinery, and in implementing urban housing schemes, on an adequate scale.

That there is a need for such a separate Ministry is obvious from the very magnitude and importance of the problem. Establishment of healthy living conditions for our future generations will be decided by the way in which and how speedily we plan and implement our schemes for the urban as well as the rural areas.

To give an idea of the magnitude of the problem it will suffice to say that the development of Bombay City alone including provision of housing will need over six hundred crores of rupees over a twenty year period.

Education of the masses for better living

The problem is colossal. In the existing conditions of our society when masses are illiterate and in need of employment, they have no urge for a better standard of living. They are used to sub-standard and insanitary environments. Education of the whole population for creating an urge for better living is, therefore, necessary. This can be achieved by visual education. To this end films and radios can perform a very useful and noble function by teaching the population as to how they could improve their manner of living through pictures and stories leaving them to find the moral.

Conclusion

The task of improving the living conditions of the population in a country like India is an exciting one. As one administrator in this country has said, "if the citizen lives in an evil smelling alley, in a dark unventilated house, without sufficient water, without drainage, without sanitation, his mind, too, will be dark and narrow, his habits dirty, his ideas limited and cramped. The perpetual irritation of discomfort and ugliness will warp the noblest soul. But give your citizen clean broad road, a well planned well ventilated house, however small and humble, water drains, sanitation, lighting and open spaces for his recreation and every sort of civic amenity, at once his outlook changes; with better health and greater comfort his mind broadens, his standard of living rises, his ideas are ennobled and he becomes an enlightened citizen of Greater India."

This is too true and can be seen in actual results in the various housing colonies put up by the State in Bombay City and elsewhere.

SLUM CLEARANCE IN AHMEDABAD

*A Note on the Slum Clearance Problem for the
City of Ahmedabad*

by

SHRI K. M. KANTAWALA

The City of Ahmedabad was founded in the 15th century and has developed as capital city of Gujarat. Early in its history, the city, being an administrative centre, attracted trade and along with the craftsmen who eventually settled down and developed the city as an important centre for handicrafts and cottage industries. With the advent of machine age, the city transformed into a large centre of textile industry. The establishment of textile industry fostered particularly increase of industrial population aided by migration from surrounding villages. Since the year 1911, there was a phenomenal increase in population of the city.

This textile industry developed in the area which was right in proximity of the railways which was the only available means of quick transport. The textile mills thus grew up in the area of Shaher Kotda and Dariapur Kazipur. These mills as they grew up required ever increasing number of workers. Vast numbers of residential structures which ranged from huts with thatched roofs to chawls with back to back rooms were constructed. This construction of chawls was subject to little public control. The workers had to give regular punctual attendance to their places of employment. Their income was too meagre to afford them a long journey to their places of work. The almost inevitable result was that the huts and the chawls were packed densely in close proximity of the mills and factories. The same reason which combined to produce over-crowding of houses on sites also induced over-crowding of people within these houses, mills, factories, intermingled in a haphazard way. That smoke and noise of mills and factories might adversely affect the health of the workers was ignored.

The Ultimate Result

The problem of slum in the core of Ahmedabad i.e., in the city within the fort walls can better be examined in light of the theory of 'Urban Threshold'. The Urban Threshold is described as a zone sometimes so narrow as to become virtually a line which marks

the transition from Urb (city) to sub-urb. In any urban-suburban system the inner and outer zones have significantly distinctive characteristics; the transition being not one of complete gradualness but of comparatively abrupt change and one of the significant changes is in the intensity of land values inside and outside the 'Urban Threshold'. An abrupt change in land value indicates that the Urban Threshold has been reached, the rule being that the lowest land value inside the threshold is as high as the highest value outside it.

In case of Ahmedabad it is very difficult to locate the urban threshold in absence of any detailed statistics but a fair approximation can be made that the urban threshold has been reached at the old city walls. The inner zone i.e., the city within the old city walls presents land value not less than Rs. 30/- sq. yd. at any point. This land value rises as we go towards the centre where it reaches figure of about Rs. 600/- to Rs. 800/- sq. yd. The lowest land value of Rs. 30/- sq. yd. is found at the city walls but there is an abrupt change of land value once we come out of the city walls. When the agricultural use of land outside the city walls is changed to non-agricultural use the value ranges from Rs. 2/- to Rs. 30/- per sq. yd.

The city within the fort walls used to be a place in which living was urbane. People enjoyed a social and gracious existence. Desire of people for living urbanely, for social and gracious existence gave rise to value. The population of this area increased by about 60% during the last two decades due to industrialisation of the city. The area (about 1300 acres) which housed this population remaining the same, the total market value of land became a junction of the population occupying it. The higher land values were marked by higher densities of population. The values of land further reached soaring heights when residential use of land was encroached upon by industrial and commercial use thus squeezing the residential accommodation. There was no control which would damp these rising land values. In absence of any legislation it was not possible to prevent the owner of a piece of land from using it in any way he likes except on the grounds of nuisance. Neither the legislation prescribed the use to which a land should be put nor it would penalise a different kind of user.

The influence of population naturally promoted housing development. There was no proper control over this development either with regard to open spaces around and between two buildings or with regard to the strength of buildings. Development was properly controlled neither at the planning stage nor at the execution stage. Even the minimum requirements for a good habitable house were given poor attention. The minimum land value within the urban threshold as has been said above reached as high as Rs. 30/- sq. yd. which would not economically support a residential use of land. The population of the city mainly comprised of working class with lower income groups. These people were not able to pay higher rents

arising out of higher land values. They were simply squeezed in in their search for a space to live in, with the result that attempts to lower the irreducible minimum were made. Densely packed sub-standard, unhealthy and insanitary houses were constructed in many parts of the city. The housing accommodation nevertheless did not keep pace with the housing shortage and the over-crowding of people within the houses was the outcome.

This slum element in the old city walls was further intensified by the absence of open spaces for recreation and amenity. Even now, this area is astonishingly deficient in open spaces when we note that only 0.06 acres per 1000 persons are available as against the modern standard of 7 acres per 1000 souls in England and 10 acres per 1000 in America.

It can be summarised that within the urban threshold the physical development or redevelopment has not kept pace with the rise in land values. It is as if the land were crying out for a better use and the wrongness of continuing the old development has created a characteristic situation.

In these circumstances, the fact that the standard of health and sanitation of the city as a whole can only be raised by adequate housing the influx of population and that part of the population which is already housed in slums, is uncontroversial. It is undoubtedly a Himalayan task for any agency to provide housing in such a great number. The Ahmedabad Municipal Corporation has always thought of this problem with grave concern and has progressed in this field with whatever means available with it.

The Ahmedabad Municipal Corporation without shirking in the slightest manner from its responsibility has been always consistent in its efforts in eradicating insanitary houses, irregular developments, kutcha huts, dirty chawls and all such evils which are blots on an ideal city. In order to encourage an appropriate, systematic, orderly and healthy development of the city, the Corporation has formulated Eighteen Town Planning Schemes. Building bye-laws under the Corporation Act have regularised this housing development from both strength and sanitation point of view. This, however, can never solve the problem of slum clearance and housing completely. It requires solid, consolidated and well planned efforts.

The outward movement of population from city to the suburbs, however, did not obviate the over-crowding and slum conditions in the city area. Slum Clearance would necessitate new housing for slum dwellers and it is, therefore, of prime importance to pay attention to the various aspects of housing especially to the matters relating to housing survey and housing needs.

In order to obtain a correct picture of the slum areas and the slum dwellings of the city, a statistical survey has been conducted by

the Ahmedabad Municipal Corporation and the information has been analysed wardwise to get a proper perspective of the problem. The survey was of a fact finding nature and was undertaken with a view to ascertaining the existing housing conditions in the city and collecting the basic data useful for preparing slum clearance schemes of the Corporation. The survey was also to provide data for estimating shortage of housing in the city.

Keeping in view the objects of the survey, as out-lined above, a suitable form was designed for the collection of data which also covered other information relevant to housing. A copy of the form used is given at the end of this paper.

Major Findings of the Survey

Major findings of the survey are summarized below into three separate categories :

- (A) Physical Survey
- (B) Income Survey, and
- (C) Rental Survey of families having monthly income upto Rs. 175/- and without normal habitation, as shown in Extracts.

* Under each category, findings are described separately for area within city walls, suburban area and total area (city area and suburban area together).

(A) PHYSICAL SURVEY

I Area within City Walls

(a) Total number of families surveyed in the area within City Walls is 76,192, covering a population of 4,02,836 persons. Of these families, 39,823 (52.27%) families with a population of 1,74,885 (43.41%) are with normal habitation, 24,291 (31.88%) families with a population of 1,72,873 (42.91%) live in over-crowded habitation, 10,787 (14.16%) families with a population of 48,927 (12.15%) live in non-habitable habitation and the remaining 1,291 (1.69%) families with a population of 6,151 (1.53%) live in huts. Thus the percentage of families without normal habitation is 47.73, the corresponding percentage of population being 56.59%.

(b) Of the total number of families surveyed in the area within city walls, 21,436 (28.13%) families are industrial families with a population of 1,15,011 (28.55%) and 54,756 (71.87%) families are non-industrial families with a population of 2,87,825 (71.45%).

Among industrial families, the percentage of families with normal habitation is 41.65, the corresponding percentage of population being

30.79 ; while percentage of families without normal habitation is 58.35, the corresponding percentage of population being 69.21.

Among non-industrial families, the percentage of families with normal habitation is 56.42, the corresponding percentage of population being 48.46 ; while percentage of families without normal habitation is 43.58, the corresponding percentage of population being 51.54.

(c) Of the total number of families surveyed in the area within city walls, 54,958 (72.13%) families with a population of 2,68,273 (66.60%) live in rented tenements and 21,234 (27.87%) families with a population of 1,34,563 (33.40%) live in self-occupied tenements.

A comparative picture of families living in rented and self occupied tenements in relation to nature of habitation is given below :

Nature of habitation	Rented tenements				Self-occupied tenements			
	No. of families	Per- cent of total	No. of persons	Per- cent of total	No. of families	Per- cent of total	No. of persons	Per- cent of total
Families with normal habitation	25738	46.83	96281	35.89	14085	66.33	78604	58.41
Families without normal habitation	29220	53.17	171992	64.11	7149	33.67	55959	41.59
Total	54958	100.00	268273	100.00	21234	100.00	134563	100.00

II. Suburban Area

(a) Total number of families surveyed in the suburban area is 97,461 covering a population of 3,77,708 persons. Of these families, 37,723 (38.71%) families with a population of 1,10,783 (29.33%) are with normal habitation, 35,465 (36.39%) families with a population of 1,75,485 (46.46%) live in overcrowded habitation, 8,030 (8.24%) families with a population of 28,679 (7.59%) live in non-habitable habitation and 16,243 (16.66%) families with a population of 62,761 (16.62%) live in huts. Thus the percentage of families

without normal habitation is 61.29, the corresponding percentage of population being 70.67.

(b) Of the total number of families surveyed in suburban area, 62,964 (64.60%) families are industrial families with a population of 2,36,697 (62.67%) and 34,497 (35.40%) families with a population of 1,41,011 (37.33%) are non-industrial families.

Among industrial families, the percentage of families with normal habitation is 36.67, the corresponding percentage of population being 26.78; while percentage of families without normal habitation is 63.33, the corresponding percentage of population being 73.22.

Among non-industrial families, the percentage of families with a normal habitation is 42.42, the corresponding percentage of population being 33.61; while percentage of families without normal habitation is 57.58, the corresponding percentage of population being 66.39.

(c) Of the total number of families surveyed in suburban area, 90,823 (93.19%) families with a population of 3,41,834 (90.50%) live in rented tenements and 6,638 (6.81%) families with a population of 35,874 (9.50%) live in self-occupied tenements. A comparative picture of families living in rented and self-occupied tenements in relation to nature of habitation is given below :

Nature of habitation	<u>Rented tenements</u>				<u>Self-occupied tenements</u>			
	No. of families	Per- cent of total	No. of persons	Per- cent of total	No. of families	Per- cent of total	No. of persons	Per- cent of total
Families with normal habitation	33665	37.07	92603	27.09	4,058	61.13	18,180	50.68
Families without normal habitation	57158	62.93	249231	72.91	2,580	38.87	17,694	49.32
Total	90823	100.00	341834	100.00	6,638	100.00	35,874	100.00

III Total Area

(a) Total number of families surveyed in City as a whole is 1,73,653, covering a population of 7,80,544 persons. Of these families, 77,546 (44.66%) families with a population of 2,85,668 (36.60%)

are with normal habitation, 59,756 (34.41%) families with a population of 34,83,58 (44.63%) live in over-crowded habitation, 18,817 (10.84%) families with a population of 77,606 (9.94%) live in non-habitable habitation and 17,534 (10.09%) families with a population of 68,912 (8.83%) live in huts. Thus the percentage of families without normal habitation is 55.34, the corresponding percentage of population being 63.40.

(b) Of the total number of families surveyed, 84,400 (48.60%) families are industrial families with a population of 3,51,708 (45.06%) and 89,253 (51.40%) families with a population of 4,28,836 (54.94%) are non-industrial families.

Among industrial families, the percentage of families with normal habitation is 37.94, the corresponding percentage of population being 28.09; while percentage of families without normal habitation is 62.06, the corresponding percentage of population being 71.91.

Among non-industrial families, the percentage of families with normal habitation is 51.01, the corresponding percentage of population being 43.58; while percentage of families without normal habitation is 48.99, the corresponding percentage of population being 56.42.

(c) Of the total number of families surveyed, 1,45,781, (83.95%) families with a population of 6,10,107 (78.16%) live in rented tenements and 27,872 (16.05%) families with population of 1,70,437 (21.84%) live in self-occupied tenements. A comparative picture of families living in rented and self-occupied tenements in relation to the nature of habitation is given below:

Nature of habitation	Rented Tenements				Self Occupied			
	No. of families	Per-cent of total	No. of persons	Per-cent total	No. of families	Per-cent of total	No. of persons	Per-cent of total
Families with normal habitation	59403	40.75	188884	30.96	18143	65.09	96784	56.79
Families without normal habitation	86378	59.25	421223	69.04	9729	34.91	73653	43.21
Total	145781	100.00	610107	100.00	27872	100.00	170437	100.00

(B) *INCOME SURVEY*

I. *Area within City Walls*

Out of 76,192 families surveyed in the area within city walls, 59,968 families are having monthly income upto Rs. 175/-, giving a percentage of 78.71; while the percentage of families having monthly income above Rs. 175/- is 21.29.

II. *Suburban Area*

Out of 97,461 families surveyed in the suburban area, 82,629 families are having monthly income upto Rs. 175/-, giving a percentage of 84.78; while percentage of families having monthly income above Rs. 175/- is 15.22.

III. *Total Area*

Out of 1,73,653 families surveyed in city as a whole, 1,42,597 families are having monthly income upto Rs. 175/-, giving a percentage of 81.12; while the percentage of families having monthly income above Rs. 175/- is 17.88.

(C) *RENTAL SURVEY*

I. *Area within City Walls :*

Total number of families living in rented tenements and covered in this rental survey is 23,014 in area within city walls. Of these, 6,610 (28.72%) families are paying rent below capacity, 13,153 (57.15%) according to their capacity and remaining 3,251 (14.13%) above capacity. Again, of these families, 9,164 (39.82%) families have shown their willingness to change the residence, out of which, 6,920 families are willing to pay rent below economic rent and 2,244 above economic rent.

II. *Suburban Area*

Total number of families living in rented tenements and covered in this rental survey is 47,303 in suburban area. Of these, 17,230 (36.42%) families are paying rent below capacity, 28,504 (60.26%) according to their capacity, and remaining 1,569 (3.32%) above capacity. Of these, 21,531 (45.52%) families have shown their willingness to change the residence, out of which, 19,867 families are willing to pay rent below economic rent and 1,664 above economic rent.

III. *Total Area*

Total number of families living in rented tenements and covered in this rental survey is 70,317. Of these, 23,840 (33.90%) families are paying rent below capacity, 41,657 (59.24%) according to their

capacity and remaining 4,820 (6.86%) above capacity. Of these families, 30,695 (43.65%) families have shown their willingness to change the residence, out of which, 26,787 families are willing to pay rent below economic rent and 3,908 above economic rent.

Some of the major findings of the survey are shown in the charts appearing on pages 144, 145 and 146.

Extracts showing the results for individual wards surveyed and other Tables showing detailed results relating to this survey are also given at the end of this paper.

As can be seen from the Chart 1, out of the total 1,73,653 tion. The rest i.e., 77,553 habitations can be classified either as over crowded habitation, or as non-habitable habitations or as huts. This in other words means that 77,553 tenements can be classified as slums.

On a rough approximation it can be stated that out of these, about 35,000 tenements can be improved upon by suitable combination of 2 or more tenements or by providing amenities like water closets, bath rooms, water supply, drainage and electricity. A separate scheme will have to be worked out for improving these habitations. Leaving out these 35,000 tenements, about 40,000 new tenements require to be constructed for dealing with slums of the existing population. Assuming that this housing programme may take ten years we shall have to provide for further increase in population during this period of ten years. To cover this 10,000 more tenements may be necessary. Thus the total requirements of new tenements can be approximately estimated at 50,000. Based on the Government of India's ceiling prices and assuming the average cost at Rs. 4,300/- per tenement, the cost of constructing 50,000 new tenements will be Rs. 21.50 crores.

The Ahmedabad Municipal Corporation has started the construction of quarters for its own staff partly under the Low Income Group Housing Schemes and partly out of its own funds. Similarly it is understood that the Government of India and Government of Bombay are contemplating gradual construction of quarters for their own staff. The Bombay Housing Board is constructing an appreciable number of quarters for industrial workers from year to year.

There is also a fairly appreciable housing activity in the private sector mainly under Co-operative Housing Schemes. No accurate data about the exact magnitude of these various kinds of housing activities is available, though it may be roughly assumed that during the coming ten years, about 30,000 new tenements may have to be constructed under the above groups, leaving about 20,000 tenements for construction under the Slum Clearance Schemes. Thus on an average about 2,000 tenements should have to be constructed every year, if no slum is to remain after ten years.

CHART I
Distribution of families and persons according to
nature of habitation

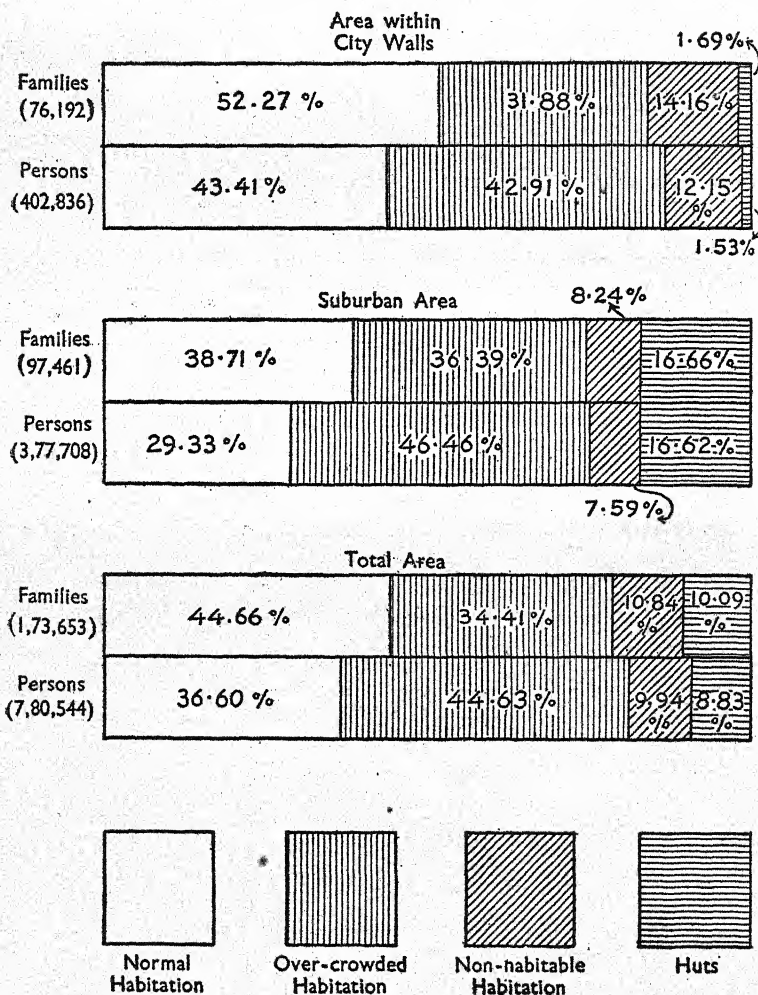


CHART 2
Distribution of Non-Industrial and Industrial Families.

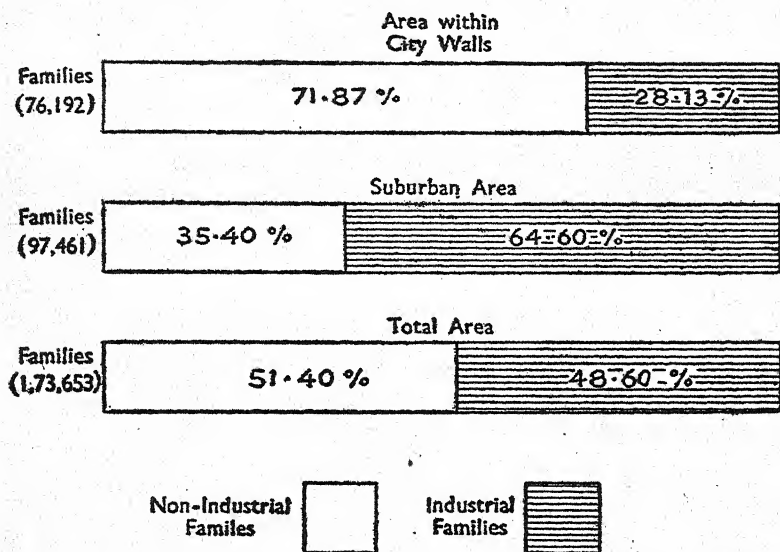
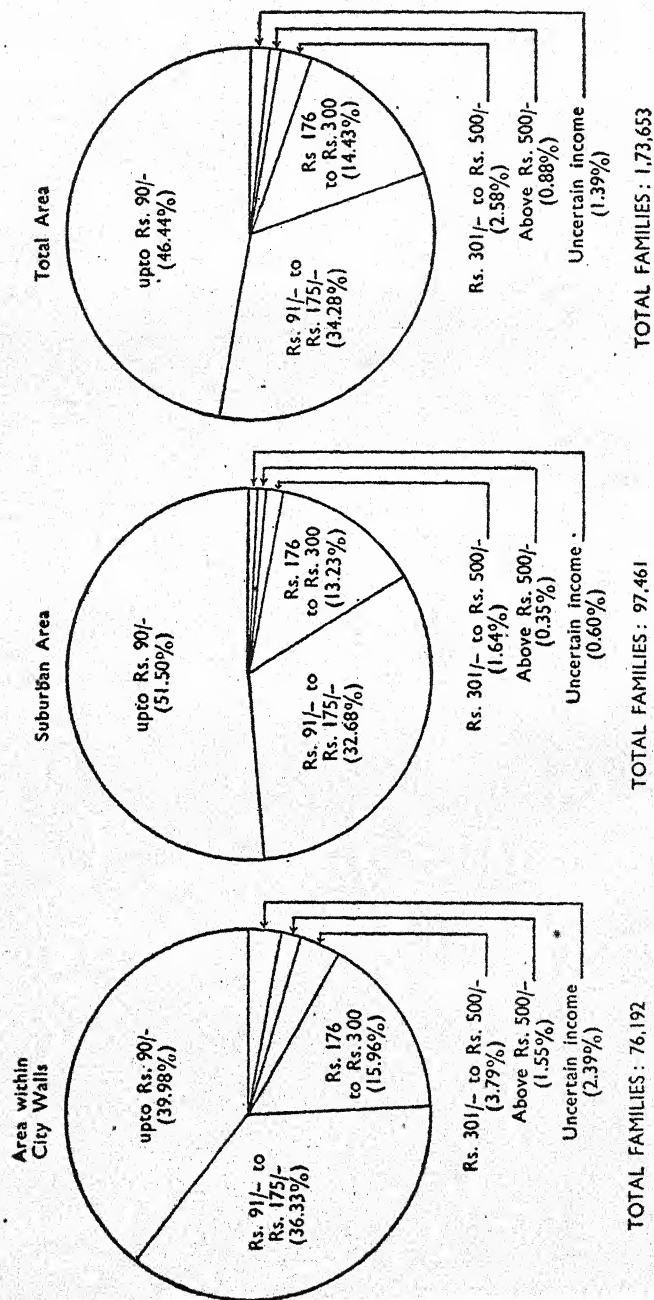


CHART 3
Distribution of families according to monthly income groups



On this basis, the Ahmedabad Municipal Corporation has formulated a slum clearance programme for the construction of 8,714 tenements at 22 different sites at an estimated cost of Rs. 3.26 crores. Details regarding this can be readily seen from the Statement 'A', given at the end of the paper. The Corporation's intention was to complete the full construction programme during the remaining period of the Second Five Plan. However, the Government of India, under the slum clearance scheme, have sanctioned the construction of only 1,880 tenements spread over eight different sites, the sanctioned amount being Rs. 67,91,200/-.

All the 22 sites have been arranged in an order of priority which has been fixed by keeping in view the availability of site for immediate construction. The sites belonging to the Corporation are proposed to be taken first, then the vacant sites and at last the sites which are at present occupied.

The statistical survey has revealed that the slums are scattered all over the city and the Corporation thinks that instead of starting work at one place, the work of slum clearance should be started in all the localities simultaneously, with a view to give a fair and equitable treatment to all the areas.

A study of the existence of slums is being made in each locality and as far as practicable, a vacant site near the slums is selected to start putting up new tenements. In the second phase, the slum sites themselves will also be taken up for providing new tenements. Secondly the present sites are generally selected in such places where Municipal services like water supply, drainage and street lighting are very near and can be easily extended to the new colonies.

The prices of lands within the old fort wall are very high, whereas those in the suburbs are comparatively low. Again, there are no vacant sites within the old fort wall area and work of demolition of slums and putting up of new tenements has to be done immediately on the site. The acquisition of these sites is also likely to take a long time and with this in view we proposed to take up four sites within or on the fringe of the old fort wall for improvement. Many more clearance schemes within the old fort wall will be necessary, but they will have to be taken up only during the successive five year plan periods. The remaining 18 schemes are proposed on vacant plots in the suburbs, where also very bad slums exist at present.

The Corporation has already passed a resolution to acquire six lakh sq. yds. of vacant land at an approximate cost of Rs. 20 lakhs for slum clearance and housing. As acquisition takes time, proceedings have already been started in anticipation of the sanction of further slum clearance schemes.

The Corporation has worked out eight different designs for slum clearance tenements to satisfy the standards laid down by the Ministry

of Works, Housing and Supply. Advisor to Government of India has approved them. They were also to the members of the Slum Clearance panel of the Building Projects Team of the Planning Commission and the same were very much liked by them. Layouts also were approved by the Housing Advisor and the densities have been kept as low as possible consistent with the cost of land per tenement.

All the construction will be of pucca type with brick walls in cement mortar and R.C.C. slabs. The specifications will be for permanent type of construction as adopted by the Ahmedabad Municipal Corporation, for its various constructions like schools, Maternity Homes, and residential quarters. No water proofing on the terrace has been provided because in Ahmedabad there is not much rain fall and the terraces of the buildings already constructed without water proofing show no signs of leakage. Every tenement is provided with a separate water closet and bath. The rabari colonies being outside the city where no drainage facilities are available have been provided with *aqua privies*.

Work on all the sanctioned works is in full swing and all the sanctioned 1,880 tenements spread over eight different sites will be completed much ahead of the schedule.

CONSTRUCTION AGENCIES

by

SHRI B. P. DERIA

All are agreed on the necessity and magnitude of the problem of Urban Housing in the country and Greater Bombay in particular. Satisfactory solution of the problem involves large finance. Two questions, therefore, naturally arise :—

- (i) How to pool the financial resources, and
- (ii) Who should undertake the task?

It has been suggested that the large employers, such as (i) Employers of large industrial population, (ii) State and Central Governments, and (iii) Local and other public authorities, should undertake to pool the resources and provide housing accommodation to their employees. It is admitted that this solution only touches a fringe of the problem and depends largely on taxation, direct or indirect. It leaves a wide gap to be yet filled in, and it can only be engulged by pooling private resources. This has given an opportunity to individual builders to exploit the situation with all its resultant mal-practices.

I believe that there is a large section of the population in Bombay who are anxious and in a position to own their own house or a flat. Efforts have been made to form Co-operative Housing Societies for the purpose; but they have not fully succeeded due to various reasons. It requires free cooperation on the part of all members. Now this is not possible when the participants are head-long busy in their occupations. None of them in a place like Bombay has time to pay adequate and proper attention. Nor do they possess necessary experience to steer through the Co-operative Societies in a satisfactory manner. Very often there are dissensions and quarrels. There is considerable delay from the beginning to the end and it causes frustration. People are, therefore, wary of joining such Co-operative Housing Societies and ultimately go in for the ready-made house or flat put up by the private builder who abuses his position by adopting unfair means.

The urge to own a house is paramount in every individual. If a fair deal and chance is given to him, he can bring in his own resources without depending on Government. Such individual resources have to

be pooled and brought into the field of Housing. The only way to do this is to encourage the formation of House-Building Companies managed by responsible well-known and experienced persons under the existing Companies Act which provides for necessary safe-guards. They can acquire land in various localities with the help of Government and put up houses to cater to the needs of all types of persons with a reasonable fair return on the outlay which can be utilised over and over again. Such Companies will, therefore, need assistance from the Government in acquiring expeditiously the land and controlled building materials. Remission in the Stamp-duty on the transfer of property by such Companies needs consideration on the part of the Government, as it will lessen the burden of the participants i.e., buyers.

It should, however, be noted that such Companies cannot be expected to put up houses for rental purposes. They can only cater to the needs of those who desire to own their house or flat. Thus the floating capital can be utilised again and again for the benefit of others. The profit, if any, realised will be distributed amongst the shareholders in the form of dividends.

If such a Company is sponsored by responsible, well-known and experienced persons supported by Government, I am sure that it will attract a large number of persons waiting in queue to be registered by advancing money.

LIST OF PARTICIPANTS

Director of the Seminar—Shri K. L. Panjabi, ICS (Retd).

Members of the Executive Committee

1. Shri N. T. Mone, ICS,
Chief Secretary to Government of Bombay.
2. Shri D. R. Pradhan, ICS,
Special Secretary to Government of Bombay.
3. Shri V. L. Gidwani, ICS,
Municipal Commissioner, Bombay.
4. Shri R. S. Bhatt,
Member, Tariff Commission, Bombay.
5. Shri N. S. Pardasani, IAS,
Deputy Secretary to Government of Bombay.

Members of the Seminar Sub-Committee

6. Shri B. P. Patel, ICS,
Managing Director,
State Bank of India, Bombay.
7. Shri C. R. Desai,
Housing Commissioner, Bombay.
8. Shri K. B. Carnac,
City Engineer,
Bombay Municipal Corporation.

Finance Department, Government of Bombay

9. Shri V. Ishvaran, ICS,
Secretary to Government of Bombay.
10. Shri K. Ramkrishna Aiyar, IA & AS,
Deputy Financial Adviser to
Government of Bombay.

Public Works Department, Government of Bombay

11. Shri F. J. Heredia, IAS,
Deputy Secretary to Government of Bombay.
12. Shri S. V. Lonkar,
Deputy Secretary to Government of Bombay.

Labour & Social Welfare Department, Government of Bombay.

Shri C. R. Desai,
Housing Commissioner, Bombay.

Bombay Municipal Corporation

13. Shri S. M. Y. Sastry,
Deputy Municipal Commissioner.

14. Shri N. K. Gandhi,
Senior Assistant Engineer.

Bombay Port Trust

15. Shri F. D. Daruwala,
Executive Engineer.
16. Shri N. R. Tembe,
Officer-in-charge, Designs.

Bombay Housing Board

17. Shri P. K. Daruwala,
Executive Engineer.

Life Insurance Corporation

18. Shri W. X. Mascarenhas,
Executive Director.
19. Shri K. A. Srinivasan,
Executive Director.
20. Shri J. A. Taraporevala,
Superintending Supervisor of Works.

Ahmedabad Municipal Corporation

21. Shri A. H. Gandhi,
Deputy Engineer.

Vidarbha Housing Board

22. Shri N. M. Muley,
Assistant Secretary.
23. Shri D. P. Dave,
Divisional Engineer.

Bombay Cooperative Housing Finance Society Ltd.

24. Shri L. S. Dabholkar, Director.
25. Shri P. B. Desai, Director.

Bombay Cooperative Housing Federation Ltd.

- Shri L. S. Dabholkar, Chairman.
26. Shri A. H. Kulkarni, Honorary Secretary.

Indian Merchants' Chamber

Shri L. S. Dabholkar.

All India Manufacturers' Organisation

27. Shri J. V. Patel, Honorary Treasurer.

Employers' Federation of India

28. Shri N. M. Vakil, Secretary.

Bombay Industries' Association

29. Shri S. P. Zaveri, Member.

Bombay Millowners' Association

30. Shri R. D. Gokhale,
Labour Officer.
31. Shri M. S. Warty,
Deputy Labour Officer.

Builders' Association of India

32. Shri H. J. Shah, President.
33. Rai Sahib Bhagwandas, Ex-President.

Bombay Tenants' Association

34. Major S. R. Bamji, Vice-President.
35. Smt. Sera Vadifdar, Joint Secretary.
36. Shri N. S. Giradkar, Joint Secretary.
37. Shri M. P. More, Member.
38. Shri Harivallabh Sharma, Member.

Indian Institute of Architects

39. Shri M. N. Dallas, Chartered Architect.
40. Shri M. J. Dubash, Chartered Architect.

Indian Institute of Technology, Kharagpur.

41. Prof. G. M. Mandalia,
Professor of Architecture,
Department of Architecture and Regional Planning.

Invitees*Members of the Branch*

42. Shri N. D. Mehrotra,
Commissioner of Income Tax, Bombay.
43. Shri O. K. Ghosh,
Accountant General,
Bombay.
44. Shri S. H. Belavadi,
Secretary, Bombay Legislature Secretariat,
Bombay.
45. Shri L. N. Bongiwar, IAS,
Deputy Secretary to Government of Bombay.
46. Shri G. C. Baveja, IAS,
Deputy Secretary to Government of Bombay.
47. Shri N. D. Buch, IAS,
Deputy Secretary to Government of Bombay.
48. Shri B. S. Bhatnagar,
Forbes, Forbes Campbell & Co. (Private) Ltd.,
Bombay.
49. Shri G. H. Lalwani, IAS,
Deputy Secretary,
Department of Atomic Energy,
Government of India Bombay.
50. Shri K. P. Goel,
Personnel Officer,
Kamani Engineering Corporation,
Bombay.
51. Shri Kailash Prakash,
Superintendent of Post Offices,
Bombay.

Members of Legislative Assembly, Bombay.

52. Shri F. M. Pinto, M.L.A.

Bombay Municipal Corporators

53. Shri B. P. Divgi,
Chairman, Standing Committee,
Bombay Municipal Corporation.
54. Shri M. Madhavan,
Chairman, Improvements Committee,
Bombay Municipal Corporation.

Others

55. Shri M. Datta,
Director of Commercial Audit, Bombay.
56. Shri B. P. Deria,
Assistant Housing Commissioner, Bombay.
57. Shri Ramchandra Rao,
Deputy Director of Audit, Bombay.
58. Prof. D. R. Dalvi,
Victoria Jubilee Technical Institute,
Bombay.
59. Shri P. H. Doshi, Charatered Architect.
60. Shri H. G. Doshi, Charatered Architect.
61. Shri H. V. Tahilramani, Private Builder.
62. Shri H. D. Thakkar.
63. Shri Govardhandas Mehta.